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# THE DEVELOPMENT MODEL AND PATH OF GUANGDONG'S CULTURAL AND TOURISM INDUSTRY BASED ON THE DIGITAL ECONOMY

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Abstract: In recent years, with the continuous development of digital technology and the expansion of application scenarios, the digital economy is gradually becoming a pillar industry of China's economic and social development, which has also prompted the digital transformation of the cultural and tourism industry. Guangdong Province should seize the opportunities brought by the digital economy and fully utilize the digital economy to empower the high-quality development of cultural tourism industry. This study discusses the current situation and challenges of the cultural tourism industry in Guangdong Province in the context of the digital economy, and analyzes the problems of uneven regional development, imperfect policy support system, technological bottlenecks and talent shortages, as well as the diversification of consumer demand. Based on the existing challenges, this study proposes a path to promote the high-quality development of Guangdong's cultural tourism industry from three dimensions: the supply side, emphasizing the quality and efficiency of service supply by strengthening the construction of digital infrastructure and the innovation of cultural tourism products; the market side, focusing on precision marketing and branding to enhance the market competitiveness of cultural tourism products; and the demand side, utilizing big data and personalized services to enhance consumer experience and meet the increasingly diversified needs of tourists. This study provides clear development paths for the transformation and upgrading of Guangdong's cultural tourism industry in the context of the digital economy. It also offers theoretical foundations and practical guidance for the digital transformation and innovation of cultural tourism industries across the country and in other regions. The proposed solutions, based on an in-depth analysis of the current situation of Guangdong's cultural tourism industry, provide significant practical value for the high-quality development of the industry.

Keywords: Digital economy; Culture and tourism integration; Guangdong culture and tourism; Development path

#### 1 INTRODUCTION

With the continuous development of digital technologies such as the Internet of Things, artificial intelligence, blockchain, etc., the digital economy has become an important engine for national economic growth and high-quality development of the tourism industry[1], providing new opportunities for the digital transformation of the culture and tourism industry, and the development of the culture and tourism industry presents a new scene of development of "technological empowerment, culture and tourism innovation"[2]. As one of the most economically developed provinces in China, Guangdong Province has a unique advantage in terms of cultural and tourism resources. Its rich historical and cultural heritage, unique natural landscapes, and modern tourism facilities have made it an important destination for domestic and foreign tourists. However, although the culture and tourism industry has become an important part of the national economy, its development still faces many challenges, including a single service model, insufficient application of digital technology, and uneven regional development. Therefore, systematically exploring the logical mechanism and practical path of the integrated development of culture and tourism in the digital economy will help the high-quality development of the integration of culture and tourism in Guangdong.

Since the establishment of the Ministry of Culture and Tourism in 2018, the integration of culture and tourism has become a new driving force to promote the development of the culture industry and tourism industry. Culture and tourism integration is a dynamic development process in which culture, tourism and related elements interpenetrate, intersect, integrate and superimpose each other, ultimately forming a new culture and tourism industry[3]. It can also be understood that, in the context of increasingly diversified, personalized and segmented consumer market demand, the cultural industry and tourism industry share similar production factors and promote the integration of products, services and business[4]. And with the improvement of material living standards, people's demand for spiritual culture is growing, and there is an increasing demand for products and services of cultural and tourism integration, as well as a greater emphasis on high-quality products and services to meet consumer demand[5]. Therefore, the promotion of the enhancement and innovation of new forms and services generated by the integration of culture and tourism is an important trend in the current development of the integration of culture and tourism.

As to how the digital economy empowers the integrated development of cultural tourism, some scholars propose that the digital economy can bring about changes in the organization of the cultural tourism industry, change the production and management mode of market players, and optimize the industrial structure[4]. Some scholars believe that digital technology is the core support to promote the integration of culture and tourism, and its enabling logic includes the

interaction of symbiotic development, industrial innovation and digital technology at three levels[6]. Some scholars have also constructed a comprehensive evaluation index system for the development of cultural and tourism integration and empirically analyzed its driving factors and intermediary effects, including organizational innovation, technological innovation, product innovation[3], optimization of industrial structure[7], market potential, and urban innovation capacity[8] and other factors.

In summary, academics have made useful explorations of cultural and tourism integration, digital economy, and digital economy-enabled cultural and tourism integration development. However, in the context of the digital economy, emerging issues arise in the development of cultural and tourism integration, and these issues urgently need to be further explored from a new perspective. Currently, there is limited literature focusing on the provincial level, especially research on the specific pathways for the integration of culture and tourism in the context of the digital economy from the perspective of Guangdong Province. Therefore, this study takes the cultural and tourism industry in Guangdong Province as the research object, and explores the development status of cultural and tourism integration promoted by the digital economy. It focuses on analyzing the challenges of uneven regional development, inadequate policy support, technological bottlenecks, talent shortages, and the diversification of consumer demand. From these challenges, this paper proposes a specific pathway for promoting the integration of culture and tourism in Guangdong Province, particularly in the areas of digital infrastructure development, precision marketing, and personalized services. This research provides theoretical support and practical guidance for the digital transformation of Guangdong's cultural and tourism industry.

### 2 STATUS AND CHALLRNGES OF DIGITAL ECONOMY ENABLING THE DEVELOPMENT OF GUANGDONG'S CULTURAL AND TOURISM INDUSTRY

#### 2.1 Overview of the Current Status of Digital Economy Development in Guangdong Province

Guangdong Province is committed to deepening domestic and international cooperation in the field of digital economy and promoting digital technology innovation and application. Guangdong Province has ranked first in the country for eight consecutive years in terms of the size of its digital economy, which will reach 6.9 trillion yuan by 2023, with its Digital Economy Development Index at the forefront of the country, and its level of digital technology application leading the country. Especially in the Guangdong-Hong Kong-Macao Greater Bay Area, the digital industry docking mechanism and the accelerated market-oriented allocation of data elements have made it the core area of China's digital industry clusters. Grasping the new opportunities for the development of digital economy, Guangdong has further strengthened the high-quality development of digital economy by relying on its own industrial foundation and technological advantages through policy guidance, digital infrastructure construction and promotion of innovation ecosystem. In addition, Guangdong also actively promotes the integration and innovation of the digital economy and the cultural and tourism industry, injecting a strong impetus for the digital transformation of the cultural and tourism industry.

#### 2.2 Development Status of Cultural and Tourism Industry in Guangdong Province

In recent years, Guangdong Province has made significant progress in the area of cultural and tourism integration, with the relevant departments explicitly emphasizing the inheritance of historical heritage in urban renewal and exploring the integration of traditional architecture with modern lifestyles. At the same time, Guangdong Province has actively explored various forms of business, such as "non-heritage + tourism", "cultural creation + tourism" and "museum + tourism", to promote the innovative development of cultural tourism integration. In terms of rural cultural tourism, Guangdong Province has created a number of key villages and towns and boutique routes, such as Guikeng Village in Xiangqiao District, Chaozhou City, which has promoted the integration of rural culture and tourism services through the construction of cultural and tourism stations. In terms of the construction of cultural facilities, Guangdong Province has accelerated the construction of cultural facilities for the new era, with the gradual completion of projects such as the Guangzhou National Version Museum and the White Goose Pool Art Center of the Greater Bay Area, as well as the completion of a number of new cultural halls such as the Guangzhou Cultural Hall, Guangzhou Cantonese Theatre, the Guangzhou Museum of Fine Arts, and the Shenzhen Museum of Fine Arts. In addition, more than 4,000 small and beautiful new public cultural spaces such as "Yue Book Bar" and "Yue Wen Fang" have been built. In terms of the development of cultural industries, Guangdong Province has vigorously developed new industries such as digital creativity and online broadcasting, and the added value of cultural and related industries has ranked first in China for 19 consecutive years. More than 1,000 Lingnan-specific cultural and tourism events have been successfully organized to promote the dissemination of local culture. Through a series of initiatives, Lingnan, Chaoshan and Hakka cultures are blossoming into a new era with their unique charms, attracting more and more tourists to come and enjoy the unique charm of Guangdong's cultural tourism.

#### 2.3 Status of the Development of Digital Cultural Tourism Industry in Guangdong Province

Digital cultural tourism is regarded as one of the most promising segments of Guangdong's cultural tourism industry, which has shown strong development momentum in recent years, driven by policy support and technological innovation. Guangdong's "14th Five-Year Plan" clearly puts forward the construction of digital creative industry clusters.

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Guangdong Province has actively promoted the digital transformation of the cultural and tourism industry, leading the upgrading and innovation of the province's cultural and tourism industry with digital technology, and taking the lead in carrying out a series of activities such as "Digital Cultural and Tourism Experience" and "Cloud Tour in Guangdong", exploring the extensive application of digitalization in the field of cultural and tourism. Taking the Pearl River Delta (PRD) region as the core, we will promote the application of in the eastern and northwestern regions of Guangdong, vigorously push forward the in-depth application of new technologies such as 5G, AI, big data, VR/AR, etc., consolidate and enhance the advantageous industries of gaming, animation and design services, and speed up the development of new forms of business such as e-sports, live streaming and short videos, so as to cultivate a batch of globally competitive digital creativity headquartered enterprises and boutique IPs. 5A and 4A scenic spots in Guangdong Province have also accelerated the application of digital technologies. The application of digital technology has also been accelerated, gradually realizing the popularization of services such as electronic maps and voice guides, and establishing self-service functions such as online consulting, online ticketing, e-commerce, and complaint feedback, which basically cover the six major elements of "food, accommodation, transportation, shopping, and entertainment" [9]. The launch of a series of online cultural products, such as digital libraries, digital museums and cloud-based non-legacy exhibitions, not only provides visitors with a new cultural experience, but also greatly enriches the connotation of cultural tourism products. Through virtual reality (VR) and augmented reality (AR) technology, tourists can experience history and culture in an immersive way, allowing history to "reappear in front of their eyes" and cultural relics to "speak", which further enhances the tourists' cognition of culture, and also raises the degree of participation and satisfaction of tourists. This further enhances tourists' knowledge of culture and increases their participation and satisfaction. The digital transformation of Guangdong's cultural and tourism industries has injected new momentum into its economic development. In 2024, the province received 777 million visitors and generated a total tourism revenue of more than RMB 950 billion, both of which ranked first in the country. This remarkable economic achievement is inextricably linked to Guangdong's active exploration and continuous investment in digitalized cultural tourism. Through digitalization, Guangdong's cultural and tourism industry not only maintained stable development during the epidemic, but also achieved rapid recovery and high-quality development in the post-epidemic era, providing valuable experience for the digital transformation of the national cultural and tourism industry.

#### 2.4 Challenges of Digital Economy Enabling Cultural Tourism Industry in Guangdong Province

With the development of the digital economy, the cultural and tourism industry in Guangdong Province has ushered in unprecedented opportunities for transformation, but still faces many challenges in the process of development.

#### 2.4.1 Uneven regional development and inadequate digital infrastructure

As one of the most economically developed provinces in China, Guangdong Province has made significant progress in digital cultural and tourism development in the Pearl River Delta (PRD) region. However, in more remote regions such as East and Northwest Guangdong, the construction and application of digital infrastructure is still lagging behind, leading to a serious imbalance in the digital transformation of the cultural and tourism industry, and also restricting the overall development of the province's cultural and tourism industry. The digital infrastructure in the Pearl River Delta region is more complete, especially in cities such as Guangzhou and Shenzhen, where technologies such as 5G networks, smart guides and virtual tours have been widely used in the cultural and tourism industry. In Guangzhou, for example, most of the scenic spots in the city have achieved digital management, and tourists can purchase tickets online, book guided tours and personalized recommendation services through mobile platforms, which greatly improves the convenience and experience of tourists. Guangzhou's "smart tourism" project makes full use of big data analysis and intelligent technology to optimize the management and services of scenic spots and promote the modernization of the cultural and tourism industry. However, the construction of digitalized cultural and tourism infrastructure is lagging behind in regions such as east and northwest Guangdong. Network coverage in these areas is uneven, with many remote scenic spots having weak Internet signals and a low level of application of intelligent services. For example, some scenic spots still rely on traditional manual ticketing and on-site guided tours, and lack digital management systems, which makes the travel experience of tourists more traditional and fails to realize the convenience and interactivity brought by "smart tourism". In addition, there is a lack of unified planning for the construction of digital infrastructure in these regions, and the problems of lagging behind in the construction of facilities and uneven allocation of resources have further exacerbated the imbalance in development between regions.

#### 2.4.2 The policy support system needs to be improved and the data-sharing mechanism is not sound

The development of the digital economy requires strong policy support and guidance. However, in promoting the integration of digital culture and tourism in Guangdong Province, the support system of relevant policies is still not perfect. Existing policies are mostly dispersed among various departments and lack unified planning and systematic guidance, leading to insufficient coordination among departments and poor articulation among policies in the implementation process, thus limiting the full effect of policies. In particular, small and medium-sized cultural and tourism enterprises and emerging markets have not been able to enjoy sufficient resource support due to insufficient policy support, further restricting the balanced development of the cultural and tourism industry[10]. Although "Guangdong Cultural and Tourism Zone" and "Guangdong Cultural and Tourism Activity Guide", as digital cultural and tourism service platforms, have provided convenient online services, their functions have not yet been fully integrated, and there is a lack of cross-platform data support and unified management, which makes it difficult to form a comprehensive sharing of cultural and tourism resources. However, their functions have not been fully integrated, and

there is a lack of cross-platform data support and unified management, making it difficult to form a comprehensive sharing of cultural and tourism resources. In addition, Guangdong Province still faces challenges in building a data sharing mechanism for the cultural tourism industry. The decentralized management of cultural and tourism data and the lack of a standardized sharing platform have led to a poor flow of information, resulting in insufficient synergy and cooperation among cultural and tourism enterprises and departments. Especially in the northwestern and eastern regions of Guangdong, the digital transformation of cultural and tourism resources and the integration and sharing of data face greater difficulties, leading to the serious phenomenon of data silos, which affects the digitalization of the local cultural and tourism industry and the efficient use of resources. In addition, with the surge in the amount of data in the cultural and tourism industry, the issues of data security and privacy protection have gradually come to the fore. How to ensure the security and privacy of tourists' personal information and how to avoid the spread of false information have become important issues that need to be solved urgently. In practical application, cultural and tourism enterprises often lack strict privacy protection measures in the process of data collection, storage and use, especially the application of big data and artificial intelligence technology in the development of cultural and tourism products, which leads to a greater security risk for tourists' personal information and privacy.

#### 2.4.3 Technology bottlenecks and talent shortages coexist to constrain digital transformation effectiveness

There is still much room for improvement in the application of digital technology by cultural and tourism enterprises in Guangdong Province. On the one hand, the depth of technology application of cultural tourism enterprises is insufficient and their innovation ability is limited. At present, the majority of cultural tourism enterprises in Guangdong Province on the underlying research and development of digital technology is still at the level of application and transformation, the common application of e-ticketing, online booking and other basic functions, the real big data, virtual reality (VR), artificial intelligence and other technologies embedded in the design of the product, the presentation of the contents of the operation and management of the enterprise is still relatively small. The development of digital cultural tourism projects often requires high investment, which is a considerable challenge for small and medium-sized cultural tourism enterprises. Many SMEs are struggling in digital transformation due to the limitations of capital, technology and talent, and it is difficult to keep up with the pace of digital cultural tourism development. As a result, in order to reduce costs, enterprises tend to carry out model replication and lack deep excavation of culture, leading to serious homogenization of digital products. On the other hand, the demand for composite talents in digital culture and tourism is rising, and there is a shortage of composite talents in the cultural and tourism industry in Guangdong Province. First, the grass-roots cultural and tourism units lack of composite talents who understand both cultural creativity and digital technology. Second, with the introduction of new technologies, traditional positions are gradually replaced, but the lack of effective transfer training mechanism, making it difficult for practitioners to adapt to job changes. Although Guangzhou, Shenzhen and other places have digital media, tourism management and other related professions, but the poor docking between industry and education, curriculum content lags behind, the actual training of digital culture and tourism talent quality still fails to meet the industry's needs.

## 2.4.4 Consumer demand is becoming more and more diversified, the supply side needs to improve quality and upgrade

In recent years, with the rise of residents' income level and the change of tourism concepts, the consumption structure of Guangdong culture and tourism market has undergone obvious changes, from "attractions sightseeing" to "experience consumption" and "cultural identity" transformation and upgrading. Tourists are no longer satisfied with a single trip, but more inclined to in-depth participation, personalized customization, immersion experience and emotional resonance. The differentiation of consumer demand among different groups is also becoming increasingly obvious, with Generation Z tourists preferring digital cultural tourism projects with strong creativity and a sense of technology, while middle-aged and elderly tourists attach more importance to cultural heritage, service convenience and safety. At the same time, parent-child tours, study tours and other emerging segments of the market is rapidly expanding, the composite function of cultural tourism products and content integration ability to put forward higher requirements, a single scene or traditional scenic spots has been difficult to meet the differentiated, multi-level consumer preferences. However, in actual operation, some cultural tourism enterprises are still difficult to effectively respond to these changes. Some scenic spots have inconvenient guided tour services, low degree of informationization, and tourists have poor experience in obtaining attraction information, transportation connection, ticketing and park entry. Problems such as cumbersome online booking process and complicated platform operation also reduce visitors' satisfaction to a certain extent. In the process of product design and service provision, enterprises often lack interaction and communication with consumers, resulting in insufficient participation of tourists and a weak sense of identification and belonging to the product, thus affecting their loyalty and willingness to repeat consumption.

## 3 DEVELOPMENT PATH OF DIGITAL ECOMOMY ENABLING THE DEVELOPMENT OF CULTURAL AND TOURISM INDUSTRY IN GUANGDONG

#### 3.1 Promoting Infrastructure Upgrades and Digital Cultural and Tourism Product Innovation

In the context of the digital economy, the supply side of the cultural and tourism industry is at the core of Guangdong Province's efforts to promote digital transformation. In order to enhance the digitization of the province's cultural and tourism products, Guangdong Province should start from the following four aspects to strengthen the innovation of digital cultural and tourism products, optimize the infrastructure construction, and enhance the service supply capacity.

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#### 3.1.1 Strengthening top-level design and information building

Relevant departments should formulate a unified development plan for digital culture and tourism, clearly define the goals, roadmap and implementation plan for digital transformation, and ensure the effective allocation of resources and policy coherence. At the same time, it should strengthen the construction of laws and regulations in the areas of data circulation, digital copyright protection, information security and personal privacy, and promote the interconnection and open sharing of cultural and tourism data. The government should also strengthen cross-departmental cooperation, build a comprehensive coordination mechanism centered on the cultural and tourism sector, integrate resources in transportation, finance and other fields, break down departmental barriers, and provide all-round support for the digital transformation of the cultural and tourism industry. Through the "Digital Guangdong" program, it will promote the construction of a province-wide cultural and tourism big data platform, integrating data on cultural heritage, tourism resources and visitor behavior, and providing decision-making support and precise marketing services for cultural and tourism enterprises.

#### 3.1.2 Optimize policy supply and talent integration

Relevant departments should improve the policy support system, especially for small and medium-sized cultural and tourism enterprises, and provide more precise financial, technological and tax support. In addition, relevant departments should introduce special policies to promote cooperation between the cultural and tourism industry and science and technology enterprises, universities and colleges, to promote joint innovation among industries, universities and research institutes, and to promote the deep integration of technology and culture. In terms of talent integration, Guangdong Province needs to strengthen the cultivation and introduction of talents in the field of digital culture and tourism, establish a perfect talent training system, and enhance the digitalization ability and innovation awareness of practitioners. Through the formulation of incentive policies, enterprises are guided to increase their investment in talents and cultivate composite technical talents, so as to provide strong support for the innovative development of the cultural and tourism industry[11].

#### 3.1.3 Promoting the construction of intelligent scenic spots

To enhance the overall experience of tourists, Guangdong Province should accelerate the digital transformation of scenic spots above Grade A and widely apply intelligent service systems, including smart guides, e-ticketing, virtual cultural displays and personalized recommendation systems. Through the in-depth docking with the digital cultural tourism platform, scenic spots can not only provide tourists with more convenient online booking, intelligent guides and real-time information, but also optimize tourists' itinerary arrangements through data analysis, avoiding crowd congestion and over-concentration of attractions. At the same time, the construction of three-dimensional scenic area monitoring platform, real-time monitoring of tourist flow, natural landscape protection, facilities operation and maintenance and other key data, to achieve refined management. In the field of tourism transportation, give full play to digital advantage, real-time accurate release of traffic information and intelligent and efficient scheduling.

#### 3.1.4 Building new scenarios for product services

Guangdong should accelerate the transformation of cultural resources into tourism products and utilize modern technology to organically combine traditional culture with tourism experiences. By incorporating public cultural institutions, such as libraries, art museums and cultural centers, into the service chain of the culture and tourism industry, it will create more interactive and participatory activity scenarios and provide tourists with a comprehensive tourism experience that integrates knowledge, culture and entertainment. In addition, cross-border linkages are being promoted to create new business forms such as "cultural tourism + IP" and "cultural tourism + exhibition".

#### 3.2 Strengthening Digital Marketing and Market Regulation

In order to enhance the market competitiveness and attractiveness of Guangdong's cultural and tourism industry, cultural and tourism enterprises need to actively utilize digital marketing tools, such as big data, social media, and short video platforms, to promote branding and precision marketing. Meanwhile, the government should also strengthen digital regulation of the market to ensure the healthy development of the cultural tourism industry.

#### 3.2.1 Digital Marketing Precision

Utilizing the characteristics of digital media with strong effectiveness, the information is delivered through official media, self media, etc., and the dynamics of Guangdong's culture and tourism are displayed in the form of WeChat push, short videos, to attract the attention and participation of tourists. At the same time, Guangdong Province has a wealth of cultural scenic resources, you can consider online publicity through documentaries, variety shows and other forms. In addition, with the precision of big data algorithms, cultural tourism enterprises can fully understand the interests and preferences of tourists, consumer behavior, and so on, and then realize personalized product recommendations and customized promotion.

#### 3.2.2 Strengthening the market surveillance system

Relevant departments should formulate and improve relevant regulations, especially in the areas of data security, privacy protection, and false advertising, to clarify standards and guidelines, and strengthen the supervision of cultural and tourism enterprises in the areas of data collection, storage, and use, to ensure the effective protection of tourists' personal information and to prevent the misuse of data. At the same time, Guangdong Province should promote data openness and real-time sharing mechanisms among government departments, tourism enterprises and e-commerce platforms, establish a real-time synchronized big data cultural and tourism regulatory platform, and achieve cross-sector and cross-industry data interoperability and sharing. This will not only effectively strengthen real-time monitoring of

market dynamics, but also enhance the operational efficiency of the cultural tourism industry and ensure the safety and compliance of cultural tourism products.

#### 3.3 Enhancing the Consumer Experience and Meeting Personalized Needs

First, Guangdong should actively cultivate and guide new hotspots of cultural and tourism consumption, and encourage tourists to participate in high-quality cultural and tourism activities through the implementation of policies to stimulate cultural and tourism consumption, such as ticket concessions and festivals. In addition, it can draw on successful experiences such as the Cultural and Tourism Beneficial Card to promote innovative forms of cultural and tourism consumption cards and membership systems, so as to allow consumers to enjoy more benefits and thus increase the market penetration rate of cultural and tourism products. At the same time, through market research and data analysis, we can accurately grasp the diversified and individualized needs of consumers, and guide cultural and tourism enterprises to use digital technology to realize personalized customization of products and refinement of service provision. Based on tourists' interests and preferences, cultural and tourism enterprises can provide customized travel routes, activity recommendations, to further enhance tourists' experience. In addition, the development of new types of consumption venues such as night-time economy, cultural and creative stores and small theaters is supported to enrich tourism consumption scenarios, enhance diversified choices for tourists, and increase the flexibility and attractiveness of tourism consumption.

#### **4 CONCLUSION**

Guangdong Province can create a competitive cultural and tourism industry and realize the high-quality development of the cultural and tourism industry, which will also inject a strong impetus to the economic and social development of Guangdong Province.

The digital economy has provided new opportunities for the development of the cultural tourism industry in Guangdong Province. However, it still faces many challenges in the process of digital transformation, including uneven regional development, insufficient cross-sectoral collaboration and resource integration, a policy system that still needs to be improved, technological bottlenecks and a shortage of talent, as well as difficulties in meeting the diversified needs of consumers.

To address these issues, Guangdong Province should take effective measures to promote the high-quality development of the cultural and tourism industry. First, it should increase infrastructure investment in east and northwest Guangdong to promote the balanced development of the province's digital infrastructure and ensure that cultural and tourism resources can be effectively shared across regions. Second, the policy system should be optimized, cross-sectoral cooperation should be strengthened, and the opening and sharing of cultural and tourism data should be promoted to enhance the overall operational efficiency of the industry. At the same time, it is necessary to solve technical bottlenecks through innovation and technological investment, cultivate and introduce composite talents, and enhance the digital innovation capability of the cultural tourism industry. In addition, Guangdong's cultural and tourism enterprises should use data and technology as the basis to promote the personalization of cultural and tourism products, meet the increasingly diversified needs of tourists, and enhance their sense of participation and satisfaction.

In the future, the digital transformation of Guangdong's cultural and tourism industry should continue to strengthen technological innovation and green and sustainable development, and promote the rapid development of emerging modes such as smart tourism and night economy. By continuously optimizing the policy environment, innovating the service model and upgrading the infrastructure, Guangdong's cultural and tourism industry will be driven by the digital economy, resulting in smarter, more flexible and personalized products and services, and realizing the high-quality development of the cultural and tourism industry, which will also inject a strong impetus into the economic and social development of Guangdong Province.

#### **COMPETING INTERESTS**

The authors have no relevant financial or non-financial interests to disclose.

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