# Talking about computer information construction in the application of Intelligent Tourism

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Abstract: The rapid development of modern tourism industry is just with the help of modern means of transportation, new materials, computers, communication technology and other modern high-tech applications. Nowadays, in the western developed countries, high-tech has been widely promoted and applied in tourism development, tourism management, tourism marketing, tourism transportation, tourism service, education and training, greatly improving the economic benefits, work efficiency, service quality and tourists' tourism experience. Internet, WWW, Internet sales, network booking, multimedia, non ticket tourism, virtual reality, electronic map, satellite tour guide, tourism information system, high-tech theme park and other concepts have been quickly adopted by the tourism industry. Tourism products with sensational benefits in developed countries have high-tech investment, and high-tech has become related to the advantages and disadvantages of the tourism industry The key to elimination has become an important means to strengthen the competition in the international tourism market. With the continuous development of information technology, information technology is more and more widely used in tourism. This paper expounds the concept of "smart tourism" and its three aspects, and then summarizes the application of information construction in "smart tourism".

**Keywords:** Informatization; Intelligent tourism; Virtual travel

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#### I. INTRODUCTION

The application of science and technology in China's tourism industry is the most reflected in the construction of Jiuzhaigou intelligent tourism scenic spot. These domestic and foreign precedents verify the great influence of information technology on the development of tourism industry. At present, information technology has been transformed into digital intelligence. If tourism wants to develop in the long run and keep up with the pace of the times, it must break the shackles of resources, land and capital. It is necessary to perceive a more thorough future market through intelligent tourism, carry out more in-depth intelligent services, open up the industrial chain of service market, carry out more comprehensive connectivity, provide impetus for the transformation of tourism industry, and make China's tourism industry connect with the international tourism market faster. The most important purpose of "smart tourism" construction is the construction of smart tourism services. Tourism has become an important way for people to relax and relax, forming a variety of existing modes of popularization, individual and normalization, which puts forward new requirements for the construction of professional service system of tourism industry, which is the above-mentioned intelligent tourism service system. This brand-new system will become an important part of promoting China's Intelligent Tourism work, and also the core of this paper.

#### **II. Smart Tourism**

## 1.1 Concept

Smart tourism, also known as smart tourism. It is to use cloud computing, Internet of things and other new technologies, through the Internet / mobile Internet, with the help of portable terminal Internet equipment, to actively perceive the information of tourism resources, tourism economy, tourism activities, tourists and other aspects, and release them in time, so that people can timely understand these information, timely arrange and adjust work and tourism plans, so as to achieve the intelligence of all kinds of tourism information The effect that can be perceived and easily used<sup>[1]</sup>.

#### 1.2 Main contents of smart Tourism

The research of tourism value puts forward not only to meet the basic needs of tourists in travel, accommodation and play, but also to provide services in tourism safety and convenience. In order to truly realize the personalized customization of tourists in tourism, the demand for this aspect of the retail market is in short supply. The research of tourism construction is mainly divided into two parts, one is the integration of various systems, the other is the application of new technologies. There has been a consensus in the industry on

the research in this area, that is to build intelligent transportation management system, build intelligent hotels, improve intelligent scenic spots, maintain a good operating environment, coordinate the relationship between new technology and domestic and foreign tourists, and ensure the security of information<sup>[2]</sup>.

#### 1.3 Three aspects of smart Tourism

The "wisdom" of smart tourism is embodied in three aspects: "wisdom of tourism service", "wisdom of tourism management" and "wisdom of tourism marketing": 1. Wisdom of tourism service. Smart tourism starts from tourists and improves tourism experience and quality through information technology. Tourists can feel the new service experience brought by smart tourism in the whole process of tourism information acquisition, tourism planning decision-making, tourism product booking and payment, enjoying tourism and reviewing and evaluating tourism. 2. Wisdom of tourism management. Relying on information technology, Intelligent Tourism actively obtains tourist information, forms a tourist data accumulation and analysis system, comprehensively understands the changes of tourists' demands, opinions and suggestions, and relevant information of tourism enterprises, and realizes scientific decision-making and management. 3. The wisdom of tourism marketing. Through the monitoring of tourism public opinion and data analysis, smart tourism can tap tourism hot spots and tourist interest points, guide tourism enterprises to plan corresponding tourism products and formulate corresponding marketing themes, so as to promote product innovation and marketing innovation in the tourism industry(Figure 1)<sup>[3]</sup>.



**Figure 1 Smart Tourism** 

#### III. Innovation of smart tourism in urban tourism

From the general development trend of China's tourism industry, urban tourism has always been the focus of development. Of course, at present, the main body of tourism is mainly cities. In view of this constantly changing tourism mode, the Intelligent Tourism platform should also constantly combine the latest technology, constantly carry out innovative research, and use more advanced and scientific technology to the application platform. 4G network will be covered in an all-round way immediately, and the development of various smart phones provides an opportunity for the innovation of Intelligent Tourism platform. The development of Intelligent Tourism is to serve tourists, so that tourists can solve some difficult problems in traditional tourism with the help of modern technology. Now that the smart phone has reached the point of one person, the smart tourism platform should seize this opportunity to carry out bold innovation and develop mobile phone mobile terminal system, so that tourists can learn real-time tourism information through mobile phones, so that people can feel the effectiveness of science and technology at their side[4]. For example, based on the SOA system software architecture design, it can be divided into three layers of overall system architecture: the presentation layer, the application business layer, and the data layer. The client, application server, and data server implement the above three-layer architecture ( (See Figure 2)

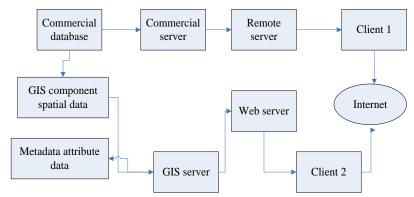


Figure 2 System server architecture

#### IV. Construction of Intelligent Tourism Service System

At present, the development of smart tourism service in China has the following characteristics. ① Although it started late, it developed rapidly. It was mentioned for the first time in 2009 that there is no similar experience in the development planning of each region. According to their own details and different perspectives, each region proposed and implemented the planning to adapt to its own development. With the continuous improvement of relevant policies, the development of each region is in good condition. ② Technology intensive and service extension. Intelligent tourism relies on all kinds of advanced technologies, so it has the characteristics of technology intensive, which also determines that if you want to continue to develop, you must rely on the development of technology, and only through the development of technology can you provide more diversified services<sup>[5]</sup>.

## V. Application of information construction in "smart tourism"

## 5.1 Information technology in online tourism service

Information query service. Tourists can query the information related to tourism, such as transportation, accommodation, scenic spots and various tourism common sense online, such as: (1) scenic spots and route query: with the help of e-commerce website, customers can easily understand the travel route information provided by the travel agency, including its price, time, means of transportation, accommodation, etc., to make a choice. (2) Online consultation: before traveling, there are often many questions to consult. The network can provide such a platform for passengers to consult with travel agencies at any time and any place where they can access the Internet. 2. Online booking service. It can provide real-time and dynamic online booking services in hotel accommodation, tourist routes, air tickets, etc. The website makes it convenient for customers to make their own travel plans according to their actual needs. 3. Online communication service. Setting up a forum on the tourism website can also provide a communication platform for tourists, so that they can talk about their travel experience, consult some problems online, and put forward some improvement suggestions for travel agencies. Even with the help of the network communication platform, tourism fans can organize groups through the network, such as food lovers' self-service tour group, custom lovers' tour group, etc. 4. Virtual reality tourism on the Internet. With the further development of computer technology, there will be a brand-new way of tourism, which is completely based on Internet, namely virtual reality tourism on the Internet. Specifically, he said that the use of virtual reality helmets, digital simulation gloves and digital simulation platforms, may also include virtual reality shell 1, so that users are exposed to a world simulated by computers[6]. The main technical support is WebGIS and virtual reality technology, which is planned to be divided into 3 subsystems and 7 subfunction modules (see Figure 3).

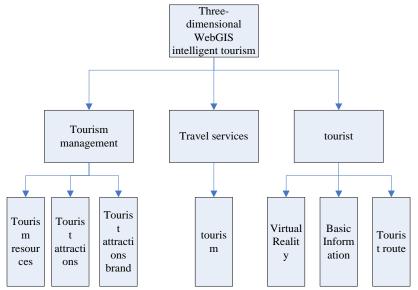


Figure 3 System function framework

#### 5.2 Information technology is developing tourism marketing activities

Because of the advantages of Internet, such as low-cost, fast, convenient and various means, the use of information technology for tourism marketing activities has a very promising future, mainly including the following aspects: I. investigation and promotion. Use the Internet to provide a variety of services, such as online surveys, E-bulletin boards, e-mails, e-journals and other forms of tourism surveys and promotions. 2. Customized marketing of tourism products. With the development of social economy, personalized consumption has increasingly become the goal of people's pursuit, reflected in the tourism industry, which is the pursuit of personalized Tourism - Personalized tourism routes, personalized tourism experience, personalized souvenirs and so on.

# 5.3 Application of GIS technology in Intelligent Tourism

GIS system can realize many functions such as layout planning, location query, map expression and spatial statistical analysis. Most of these functions are very necessary to enhance the function of Intelligent Tourism platform. The use of GIS function in smart city tourism system is mainly to use its basic geographic data to provide necessary element information for tourism topics. In the current three system platforms, the public service platform is aimed at tourists. Its main contents include tourism service website, travel planning system of urban tourism, information release system of urban parking lot, and wechat platform which is widely used at present. GIS provides great support for these systems, mainly in the information positioning of tourist sites, scientific planning and arrangement of tourists' travel plans, information query and travel route arrangement of travel traffic, as well as query and map expression of passenger flow in different scenic spots around. The application of GIS is also reflected in the mass level intelligent tourism system, for example, people can only use mobile phones and tablets. GIS It mainly provides three stages of services: in the former stage, tourists need to choose their own tourism resources before choosing tourism, and can use the path analysis provided by GIS to make some pre travel arrangements; in tourism, it can provide the query of surrounding scenic spots, guide's explanation and team services according to the positioning system; after the end of tourism, it can also be integrated back home Own performance track and share information(Figure 4)<sup>[7]</sup>.

## VI. Problems to be noted

"Smart tourism" is to use the high-tech technology brought by social progress to realize the sharing of tourism authorities, tourism individuals, tourism enterprises and social tourism resources. It plays a positive role in improving the working efficiency of tourism authorities and the service level of tourism enterprises, especially the tourism quality of tourists. As a successful example of the combination of urban tourism development and science and technology, "smart tourism" needs to pay attention to several problems in its use. First, the nature of smart tourism should be clearly defined. As a revolution in management, intelligent tourism has opened a new chapter in the development of tourism informatization, the main purpose of which is for tourists. Tourism enterprises and relevant management departments provide better service. Second, strengthen the combination of tourism and information industry. At present, the informatization level of tourism industry has not reached the highest level, and there will be some problems from time to time, such as the poor accuracy and timely update of tourism information, and the relevant industry management needs to be further improved.

Third, we should give play to the leading role of the government. Intelligent tourism is a huge system project, which involves a large amount of resources and affects a large area. Therefore, it needs the guidance of the government in the construction of related projects<sup>[8]</sup>.

### VII. Conclusion

As the tourism industry is a comprehensive, systematic and highly dependent industry, the high-tech development of tourism industry is closely related to the development of science and technology and the degree of technology application of society and related industries, which will inevitably affect each other. Therefore, the development of high and new technology in tourism industry and the development of science and technology in society are coordinated, promoted and made common progress.

#### REFERENCES

- [1]. Luo Yadan, Luo QIs. Panoramic technology intelligent tourism system based on webgl [J]. Computer system application, 2020,29 (1): 86-92.
- [2]. Yao Jiansheng, Liu Yanling. Teaching reform and practice of network course of Intelligent Tourism [J]. Fujian computer, 2020,36 (4): 115-117.
- [3]. Sun Yige, Ma ang, Wu Lei, et al. Research on efficient nearest neighbor query method based on semantic trace in Intelligent Tourism [J]. Computer application and software, 2018,35 (6): 36-41,75.
- [4]. Wu Kaijun. Hot spots and characteristics of tourism big data research -- Based on the analysis of foreign literature [J]. Statistics and information forum, 2019,34 (4): 105-113.
- [5]. Zhang Zhanzhao, song Hanzhen, Heng Junshan, et al. Application of big data technology in Intelligent Tourism Information System [J]. Journal of Chengde Petroleum College, 2016,18 (4): 49-51,59.
- [6]. Li Guangli, Zhu Tao, Yuan Tian, et al. Research on the recommendation model of Tourist Attractions Based on mixed stratified sampling and collaborative filtering [J]. Data collection and processing, 2019,34 (3): 566-576.
- [7]. Liu Peilin. Virtual reality and network presentation of tourism characteristic town [J]. Journal of tourism, 2018,33 (6): 3-5.
- [8]. Yao Jiansheng, Zhang Rui, Wu Zhongjun, et al. Teaching reform and practice of computer technology course group in Intelligent Tourism [J]. Software, 2018,39 (6): 61-63.

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