

# Research on the Design Concept of Tourism Public Goods Supply under the Internet + Background

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Abstract: With the development of economy and technology, tourism public service has entered a new stage of development under the Internet + background. The impact of Internet + on the supply of tourism public products is embodied in the socialization, simplification, individuation, multi-domain and humanization of. Experts and scholars from tourism industry have also paid attention to this. By analyzing the characteristics of the integration of Internet + technology and tourism public products, this paper explores and refines concepts and plans for the supply of tourism public goods and proposes a new concept of APP mobile phone "tour guide think tank" to construct a new round of tourism public product service system through analyzing the relevant literature and specific cases and integrating industry data from the point of innovation consciousness and product, innovative thinking, development and innovation content of the total design concept of tourism public goods to further improve the tourism public with the Internet plus background.

#### 1. Introduction

"Internet +" is a new economic form springing up in recent years. Liu Lihua (2015) proposes that factor of production can play an optimized and agglomerative role in the Internet environment to enhance the comprehensive innovation capacity and production capacity of the national economy and form an instrumental and facility economic form under the influence of Internet technology. The Internet is also a new form of infrastructure development and an economic form formed on this<sup>[1]</sup>.

The information technology made up of the Internet enables various industries to achieve integration in a networked environment and generate new driving forces. The industrial structure based on data has made the development of social economy enter a new era.

Dong Peihai and Li Wei (2010) think that public service is an important cornerstone for the development of modern tourism. It represents not only the development level of regional tourism, but also the satisfaction of tourists to the destination<sup>[2]</sup>. Huang Shiyu (2007) believes that tourism public goods involve tourism industry elements such as scenic area products, public information supply, entity industry management and tourism reception quota to form a complete and mature public service chain closely around the economic value of consumer spillovers<sup>[3]</sup>. A mature tourism public service system will bring travelers different tourism experience, economic development will also produce a qualitative leap, which for the country is an important economic support and structure and has extraordinary significance. The development of tourism public service can not be separated from the support and innovation of science and technology. Knowledge and technology are the guarantee of industrial development. Without their support, social development will only stagnate.

Through consulting the relevant literature, it is found that the study of tourism public service has always been one of the important topics of for scholars, and the combination of the Internet and the tourism industry is a new research field at this stage which still needs further in-depth study.

Tourists need a lot of tourism demanding stimulus to break through the traditional service framework, which is an urgent need for people to consider today's tourism service industry. The



development of Internet technology provides an opportunity for the innovation of public service supply in the tourism industry. Therefore, the integration of the two is an inevitable trend. In this paper, we will study the related research, development and existing problems of tourism public goods design concept innovation under the Internet + background, and integrate the feasible development strategies.

## 2. Research on Innovation of Design Concept of Tourism Public Goods Under the Background of Internet +

In recent years, "Internet +" has penetrated into the front-end portals, mobile APP research and development, new media releases, digital scenic spots management, travel agency business operation, science fiction theme tourism and other fields, and the idea of innovation in the design concept of tourism public products is becoming more and more important.

At present, the relevant literature at home and abroad mainly focuses on three aspects of innovation in the design of tourism public goods under the background of Internet +:

First, the study of innovation consciousness. Muslim etc. (2016) find that "online impulse" to promote the development of web website tourism products<sup>[4]</sup>; Juho (2015), find that "tourism information search behavior" promotes the derivation of tourism motivation in the study of three rural tourism websites in Finland<sup>[5]</sup>. Hu Han, Jiang Bin, etc. (2015) researchers have found that the promotion of O2O concept is conducive to the transmission and reception of information<sup>[6]</sup>; Liu Xianxian, Fang Xingzhong (2015) think that "mobile future" improves marketing network<sup>[7]</sup>. Lin Haojun (2005) put forward the idea of "supply chain in tourism enterprise innovation" and applied it to the construction of tourism websites<sup>[8]</sup>.

Second, researches on innovative design. Pirita (2012) believes that programming-based "creative tourism" opens up a new perspective on Tourism<sup>[9]</sup>; Fereshte et al. (2013) mined out that this kind of tourism public products generated by the customer purchase intention has a positive role in participation through the discussion of the design of Internet tourism advertising<sup>[10]</sup>; Min Wei (2012) promotes the quality of tourism service by designing a set of tourism information service system<sup>[11]</sup>. Cheng cen (2015) advocates the extensive development of mobile phone applications in combination with user preferences<sup>[12]</sup>. When Liu Guotao (2013) studied the profit formula of Ctrip, he found that all kinds of third-party service resources can provide relatively high cost-effective value information through the power combination of "magic cube" type<sup>[13]</sup>. Yuan Min (2015) believes that ,the combination of "Internet" and technology themed means of management to promote diversification of investment returns when studying the hotel management model<sup>[14]</sup>.

Third, researches on the concept of innovation. In terms of the concept of virtual tourism, Kenneth Frank Backman etc (2016) attempted to study and construct the TAM framework to create a 3D virtual world of tourism while discussing the relationship between virtual reality and tourism marketing<sup>[15]</sup>. Nie Xuedong (2013) believes that intelligent tourism can provide different groups with intelligent tourism services such as automatic navigation, intelligent tour guide, high-end management, flexible marketing and so on<sup>[16]</sup>. Deng Xianfeng (2012) has also constructed a resource integration framework for smart tourism<sup>[17]</sup>. Liao Guangfei (2006) studied the E-commerce platform of tourism services. He believed that the establishment of a multi-habitual and multi-dimensional service system to meet the needs of tourists today would stimulate consumption demand by using the "staging" method<sup>[18]</sup>.

#### 3. The Concept of Tourism Public Product Design

At present, influenced by the Internet information technology, the design concept of tourism public goods is also closely linked with it. In product design and concept innovation, business platform has been changed into portal system. Mobile phone application tends to theme development. Self-media operation is becoming more and more mature. Tourism has been intelligentized. Tourism visualization has achieved some breakthrough. This article is mainly about product design and



concept innovation.

#### 3.1. Produce Design

Now the supply of tourism public goods under the Internet + background mainly includes three parts: portal website design, mobile phone App design and new media operation design.

## 3.1.1. The Creation of Website Business Platform -- the Creation of Ctrip, eLong, Qunar and Other Portal Website

Based on customer preferences Ctrip injects Internet technology to provide housekeeping process services for tourists and establishes supply chain relationships with their peers.

Supply chain first supplies and then returns. Tourism activities become the transition point of the chain. Ctrip offers hotel discounts, air ticket discounts, tourist route advisory planning application which is an idea of a pyramid. The essence is that tourists are at the top of the pyramid. The extension of the father-son, brotherhood is a logical relationship between market demand and service provider supply. On this basis, the establishment of tourism websites will create a "butterfly effect" of resources. Tourism enterprises are the main line. The separation of hotels, restaurants, transportation, entertainment enterprises become alliances.

Elong net carries on the individualized innovation relying on this kind of chain relationship. The classification is more refined. Elong carries on the hotel subject division through the category words such as "literature and art", "rough" and so on, with the auxiliary of the price sorting. The user interface is concise and intuitive. Elong joins the consciousness of account owner in its own management and cultivates the innovative consciousness of "self-management and insurance tourism".

Qunar transformed from the early wireless business online travel website to the current global appeal of online Chinese travel website portal after a long exploration,. Qunar completes their straight air tickets and other traffic products trading as a great leap.

# 3.1.2. Extensive Development of Mobile APP Applications -- the Advent of Mobile Clients such as Tongcheng, Baidu Travel, etc.

Since the development of Mobile Tourism applications, they conquer consumers with a short and intricate user perception, known as tourism public goods "nanny robot". The gesture of nanny is compatible with the tourism service industry chain: early ticketing, mid-term consumption, later feedback and various interest gaps between the three, highlighting the brand effect of mobile phone APP convergence.

Free scenic spot tickets, subscription fees, peripheral tours, Hotel reviews, visa concessions, and "one yuan tour" strategy were introduced by the Tongcheng clients to absorb customers' preference psychology - "play well at a low price". The mode of group purchasing of scenic spots nationwide was implemented and its download volume soared by nearly 400 million.

Baidu launched a self-directed travel APP - "Baidu travel, make travel easier" to seek personality breakthroughs to get a surprising victory. When the same type of tourism APP began to focus on the competition for ticket prices, Baidu tourism abandoned price chaos to choose quality management. The birth of "tourism consultant" influenced the original traditional tourism concept of tourists. The popularity and geo-vaporization of the travel album appeared. The story of boiling wine and the hero's literature and art are coincided with the young consumer group's inner desire for freedom and romantic tourism experience.

The interface divided into three plates "Where to Play", "Travel Talk" and "Wonderful Travel Notes" shape the tourists' sky more directly. Tour planning is more specific and clear with a distinct personal style coincided with the current spirit of the Internet to become "a new young generation" of tourism public goods.

#### 3.1.3. The Public Opinion of the Internet Media -- micro-blog, WeChat and Other Media

The development of information technology can not be separated from the "big denominator" of society. The first important task of the combination of Internet technology and tourism public goods is to obtain information from other places and excavate a new service channel.



The self media operation represented by micro-blog and WeChat has been spreading in the field of tourism public products. Large and small tourism enterprises, tourist attractions, travel agencies have opened their own official micro-blogs, public platform accounts to maintain their tourism sustainability and constantly spread the influence of time and space.

Sina micro-blog spliced the opportunity of the Internet to create a new opportunity for marketing. Nearly 1,000 well-developed tourism management organizations have been stationed, and many profit-making organizations, such as scenic spots and service enterprise have continuously created eruptive marketing by means of micro-blogging which is a self-media means. Jiaozuo Yuntai Mountain and Xinxiang Baoquan make their own tourism products begin the national tourism sales and the popularity to come to a new peak through their own micro-blog advertising, the positive evaluation of the media and the transmission of the "opinion leader" charm. The self-communication of micro-blog also makes the excellent tourism resources of different places appear. Through the spread of "hot search" and "friends circle" of micro-blog, different tourists begin to have their own "tourism world" according to their own geographical environment and ideological collision. Tourism images such as Lijiang donkey friends, Yunnan cycling, Fresh Hongkong and Taiwan began to change from real-life communication to spiritual intention, and eventually sublimated into tourists' inner quality identification, enabling tourism resources to develop towards integration with the help of the Internet.

We chat marketing achieves friendly relations between media products and consumers through the "one side one" information flow. The message board set up on the public platform enables tourists to feedback their inner thoughts and true feelings back to the tour operators at the first time thus forming a barrier-free communication between time and place. The emergence of marketing models such as "two-dimensional code" scanning and "sending tickets with praise collection" enables tourism products to bloom in the "circle of friends" to get the largest share rate and spread rate. Taking the emerging public account Travel for example, its function is to "travel around the world" and to declare that "explore the most unique things with traveling in the world share with you." The spread of this public account is no longer a traditional tourism enterprise and tourist service provider. By regularly pushing people from different regions and different characteristics of their colorful lives, it attracts the attention of the reading crowds and strives to create the so-called "spiritual resonance".

#### 3.2. Innovation of Ideas

The supply of tourism public goods is no longer limited to the supply of physical products. With the continuous development of information technology, intelligent tourism, virtual tourism and other concepts have integrated into the tourism service system.

#### 3.2.1. Intelligent Tourism

Originating from the development of Internet technology, Intelligent tourism can present media fusion preview, master geo-location, real-time data updating, and information technology to push at regular intervals so as to provide automatic navigation, guided think tank, high-end management, flexible marketing and other services for different groups of tourists, making the supply of tourism public goods more humanized, comprehensive and concrete with WLAN, mobile 4G wireless network technology, sensor technology, RFID Internet of Things technology, highly refined GIS, Beidou satellite positioning technology and large data cloud computing technology. Wisdom tourism has changed the traditional tourism just like "the blind touching an elephant". And tourists can enjoy the process of tourism with the guidance and help of intelligent systems to have the "self-service" journey.

The route planning, self-driving navigation, the scenic area within the "e-ticket inquiry system", "tour guide think tank", "guide shopping services within themselves, "travel experience in the returning trip", "e-log" and so on can present a complete and clear travel context and process for tourists with intelligent tourism. With the help of a variety of Internet technology, the tourists can enjoy the best quality in the shortest time. In the final analysis, the intelligent tourism should start from the tourists' point of view and present the tourists with the resources in the precise arrangement



of charts and data. This process is one which is of re-programming the tourists' tourism course which greatly strengthens the self-control of the tourists, gets rid of the original passive consumption and reduces the turbulence of the supply of the tourism industry.

Nowadays, many cities in China have been exploring the "National Intelligent Tourism Pilot City" to establish a perception system in the form of automatic consultants based on users' preferences.

Smart tourism will structure the four major processes and resources of production supply, marketing and management:

Firstly, Intelligent tourism deduces and analyzes all kinds of tourism information resources through data mining technology so as to make tourism products aggregated and intelligent marketing more precise.

Secondly, in the process of Intelligent Tourism Resource Integration, the commercialization of the project brings excellent business model, creates cluster effect, drives intelligent shopping guide and increases transaction quota lead by tour guides.

Thirdly, the "tourism cloud" is the ultimate destination of smart tourism. It promotes the digitalization of management and the use of Internet of Things. Cloud computing will make all kinds of culture, humanities and tourism resources in the city be stored and extracted in the form of database so as to build a modern tourism intelligent system which is really beneficial to the people and the country.

#### 3.2.2. Virtual Tourism

Virtual tourism is the three-dimensional layout of the realistic tourist scene. This is the same as Taobao's Buy+ virtual shopping system recently. Similarly, under the circumstances of the development of Internet technology, virtual tourism can achieve the conjunction of Internet + technology and tourism public products.

Virtual tourism is a dream constructed for tourists by using Internet technology to clone into a second self just like every image will be reflected in the mirror under the light. Nowadays the experience of virtual tourism, assisted by the virtual platform of computer technology and visual media, gradually forms tourism experience in tourists' sensory system. This kind of experience forms a kind of invisible experience through the impact of vision, hearing and touch. The 360-degree panoramic tour makes the tourists become a circle themselves. They form a whole with all the virtual scenes they see. This kind of experience will stimulate the tourists' desire to travel and be more convicing than the publicizing produced by the major scenic spots.

#### 4. Design Concept of Tourism Public Products under the Internet + Background

Although the design of public tourism products like website portal, mobile phone application, media platform and so on have started to develop, when comparing and analyzing the related products it is found that there are still three major problems in tourism products: serious solidification of thinking, low degree of continuous use of users, and obvious lack of characteristic awareness.

### 4.1. Serious Solidification of Thinking

Today, the profit model of major websites breaks through the traditional Merchant model and is more inclined to the Agence model. A pattern cycle is widely distributed in a field, which inevitably leads to the idea falling into a strange circle of repetitive machinery. When opening Ctrip, Yilong and Qunar, which are the three major tourism services e-commerce service platforms, what can be seen is that the site's classified navigation directory cloning focus on the three modules "ticket", "hotel", "ticket" and the key word is "price".

This kind of thinking solidification phenomenon appears in a invisible way. Although the information technology of the Internet, the most important product development which is "weeding out the old and bringing forth the new" is neglected. The tourism service system which bases on the price can lead to vicious low-price competition. And the quality of tourism products is neglected to decline the travel rate of tourists.

In the development of mobile phone applications, most of the mobile phone application



construction of tourism follows the model of the website to construct the logical relationship. The classification plate is not clear, and the function zoning is chaotic, which makes the mobile phone application become the small model of websites. The lack of the unique advantages and the interactive part makes the phones lose the social influence. The advantages of socialization are being assimilated, and tourists are losing interest in the use of mobile phone applications.

With the increasing popularity of micro-blog and Wechat from the media platforms, the maintenance and operation of micro-blog and Wechat in major scenic spots have similar phenomena. Most of the tourist attractions are simply introduced with a rough price list pasted on the Internet lack of content design and editing, making the impact of new tourism media in the gradual decline.

The construction modes of Intelligent Tourism and virtual tourism has not been adapted to local conditions. Some blindly catch-up models, inherent construction of tourism service system to increase unnecessary costs resulting in waste; some ignore regional differences and copy other regional models so that product transmits into a copy and tourists can not enjoy themselves. The value of technology provided by information technology can not be enjoyed by the tourists and the technological quality has been reduced.

### 4.2. The Continuous Support Level of Users is Relatively Low

Under the background of Internet +, the development of tourism public products of websites has not been able to prompt "tailor". This is also a limitation in the design concept of public products in tourism websites. Geographical, cultural, and age differences make it impossible for some users to achieve their expectations of enthusiasm and loyalty to travel mobile phone applications, thus many users are losing their sustainable use. Taking the people born in the 1960s and 1970s as the main object of analysis, they are the generation who really experienced the Internet revolution, but the degree of use of Internet products is relatively scarce, and then the understanding of the concept of innovation biases reduce the sustained support.

At present, the convenience of mobile phone application is not conducive to the use of tourism, and the division of interval functions is fuzzy, which fails to take into account the user's continuous use experience. For young users, tourism mobile phone applications have too many functions lack of major themes, which easily makes users feel dazzled and ignore the theme of tourism. And finally tourism mobile phone applications are transformed into mobile phone furnishings to lose meaning of existing and the continued support becomes empty talk.

As the main new media platform Micro-blog and Wechat are especially prominent in tourism information dissemination. At present, the main problems in the operation of tourism new media platform are that fans are quite few. Less information coverage, and even the untimely and slow publication of tourism information platform can not meet the needs of users in the first time. Design concepts are no longer broken and information arrangement is sluggish so that users lose confidence in continuous support.

The concept of Intelligent Tourism and virtual tourism has not been widely popularized among consumers, resulting in the lose of a large number of potential users inadvertently. Taking the concept of "Intelligent Tour Guide" as an example, many consumers are accustomed to choosing artificial tour guides in scenic spots and they know little about "Intelligent Tour Guide". At the same time, there are many barriers of consumer experience in the development and construction of "intelligent tour guide", which hinder the continuous use of users to a certain extent, and many consumers would drop it when encountering some difficulties once, which will impede the promotion of the concept of "intelligent tour guide".

#### 4.3. Characteristic Consciousness is Obviously Insufficient

The lack of "private customization" awareness of product design in websites and mobile applications has led to the neglect of the current strong demand of young consumers for individualized tourism in order to blindly achieve benefits. Limited to the so-called "group purchasing" and "preferential" price temptation, it can not clarify the market in time without unique tourism culture and connotation experience so that the young consumer groups gradually fade away for the use of the website and



mobile phone tourism products.

The construction of the intelligent tourism system relies too much on science and technology, and there is not too much characteristic service system and special service consciousness for different scenic spots and tourist consumers. Different regions have different characteristics of tourism products. The three northeastern provinces have the most cultural and historical sites of the architectural landscape. Henan has the most beautiful mountainous natural landscape. So in the construction of the two intelligent tourism service system what should noted is the focus of intelligent navigation and planning rather than blindly apply the tourism template like "Scenic spots + tickets + scenic traffic". Virtual tourism has the same time-space sequence of display products when it establishes visual images, lacking the charm of storytelling and dramatization, which is not conducive to the long-term development of virtual tourism construction.

## 5. Innovation and Development Strategy of Tourism Public Goods Design Concept under the Internet + Background

The innovation and development of tourism public product design concept needs to clarify the main influencing factors and on this basis, feasible implementation strategies should be proposed to achieve a healthy and comprehensive positive development of an industry.

## 5.1. Factors influencing the Design Concept of Tourism Public Goods

#### 5.1.1. Profits Driven by Service Providers

The value of tourism products is the spiritual belief of all tour operators. In order to better reflect the value of products, service providers (including tourism product suppliers, tourism product agents, etc.) shift from physical sales to dual-port sales with both networks and entities from tourism product initial production (regional resource integration) to tourism product initial sales (to agents) and then to tourism product initial feedback (agents' first marketing) which are a series of management and operation models. The main driving force behind comes from the advent of Internet-related products such as mobile phones and computers, as well as the prevalence of usage. In the past ten years, with the development of economy, the facilities of scenic spot renovation are becoming more and more perfect, and the tourism public products created by the scenic spot itself can create abundant profits. In order to gain the foundation of the people's recognition and seek the spiritual resonance of the tourists, the major agents put advertisements on the network platform, the management of e-commerce outlets and Wechat respectively. Since the media's micro marketing, the maximization of efficiency has been achieved.

#### **5.1.2.** Respecting the Needs of Tourists Themselves

The final jurisdiction of a tourist product is firmly written in the hands of tourists. The degree of information dissemination, the degree of product reflection, the degree of visitors' feedback and so on have become the main factors affecting consumer expectations. If the information can not be transmitted to the consumer in time, it will cause the decline or even stop of consumer expectations. In the early stage, tourists' inquiry psychology drives them to search for products. In this activity, prompt transmission of information is particularly important.

The main potential of tourism products to attract tourists comes from the degree of display, and this carrier is mainly about words and images. When choosing tourism products, the most desirable "pre-experience" for tourists affects their decisions through this brief understanding and vague generalization. The breakthrough of traditional marketing methods will bring sales profits and praise. Now, young consumers tend to see different tourism products through the Internet media to get different consumer experiences.

#### **5.2.** Innovative Development Strategy

At present, the application and development of tourism website and mobile phone are becoming more and more mature, and the function development is also beginning to be comprehensive. But the design concept begins to stop at the inherent mode and development, which is not conducive to the long-term development of tourism public service products. If the idea of homogeneity of tourism



public goods design under the Internet+ background will lead to the aesthetic fatigue of consumer groups, it will be a shackle for the development of the whole tourism industry. Therefore, the future innovation of Internet technology and tourism public product design concept needs to break through the embarrassment to get rid of the framework restrictions and strengthen the industrial chain thinking to develop towards diversification.

### 5.2.1. Web Website, Smart phone App and Smart Tourism

The materialization and economization of smart tourism system is an inevitable trend. Travel service providers should pay attention to the sustainable development of scenic spots, not just to profit as a breakthrough point. Compulsory consumption and forced consumption concept should be eliminated. Special products in scenic spots can be on sale domestic and foreign with the use of Internet technology through the strength of their products to enhance visibility through different types of services to manage Tourist service resources bar in a series of ways. The "earthworm" type climbs customer needs basing on data. Business purposes can be achieved to create great values with online and offline double-slot. Intelligent tourism can be said to be the "think-tank chip" in the tourism service system. On this basis, the "tourist mansion" includes destination marketing strategy, service quality of tour guides, sales of souvenirs, intelligent trading means, feedback of electronic log services, management and operation of data and so on so as to make the overall tourism service. The system is developing towards intellectualization, humanization, housekeeping and efficiency. On this basis, intelligent tourism can be combined with Web sites and mobile applications to build such a service system:

#### (1) Management level---Web website realizes instant specialization of peer communication

Travel service agents need to go out on their own initiative and respect the development of science and technology of the times to establish network thinking through the use of Internet technology to get rid of the traditional mode of operation and management and manage customer information through electronic systems, such as travel agency offline management mode by the "Travel PepsiCo" so as to achieve the quality of work efficiency. Through the Internet, we will expand our customers and compete for the original customer resources.

At present, the distribution of tourism resources in China is uneven, and the flow of tourists is uncertain, so the communication between peers is particularly important. To establish a resource chain among the peers and to make use of the classified navigation of the Web portal to manage the advantages of tourism services resources can connect various types of travel agencies according to different scenic spots, different "direct bus prices". The specific establishment of the program is as follows:

Firstly, with the characteristic marketing method of intelligent tourism the information flow smoothly can make the seamless work between the guests of B place in A province and D place in C province to increase the passenger flow of D place and enhance its popularity in B place.

Secondly, tourism service providers and travel agents at all levels within a province have their own communication communities in the portal website; 34 provinces are divided into "34 families", each of which is graded according to different through-train rights, and travel agents can communicate with each other to maximize the spread of tourism resources. "34 Families" can carry out alliances and battlefields at different levels according to the amount of resources. Transportation, catering, accommodation and other resources are unified nationwide. The level of tourism service system is clear and transactions are improved.

Thirdly, each travel agent, relying on business license after being systematically tested and qualified can enter any "family" internal group within the website according to its own business objectives and profit requirements and become "distant relatives" to realize information exchange.

The design of this Web site is intended to create an e-business model within the tourism industry service providers and promote the economic development of the tourism industry through the integration of Intelligent Tourism resources.

#### (2) Service level---the functional differentiation of mobile APP's tourism experience



The existence of mobile APP makes people's lives more convenient. The combination of intelligent navigation and APP in intelligent travel produces a new tour service product of "guide think-tank", which is born in the Internet + background, and the specific design context is as follows:

Firstly, the "guided think tank" carried by tourists is mainly used for DIY tour and group travel: in the process of DIY tour, the action of opening the mobile phone APP and connecting to the mobile network can not only meet the aesthetic needs of tourists but also meet the tourists for tourism according to the GPS positioning system and the location of the automatic guide interpretation. In group tours, some of the left-behind tourists can rely on the "guide think tank" to understand the cultural origins, and also be traced to the location of their team guide in time to maintain contact and ensure the quality of tourism;

Secondly, in the process of purchasing souvenirs, the "guided think tank" will contain the cultural value and historical origins of souvenirs in the "traveling bag" section as well as many e-merchants of the same level offering a variety of options, electronic transfer payments for tourists to understand in advance and promote the quality of souvenir production to enhance the initiative of tourists the interest of tourism.

Thirdly, there is a self-evaluation system for tourists in different scenic spots and different regions and they can also write different guides' lectures independently. After a systematic review, there is a preferential welfare policy for consumption, so as to enhance tourists' participation in tourism.

The concept design of APP and the development of intelligent guided robot are all aimed at understanding tourists' consumption psychology, improving the professional image of guided tourists and promoting the healthy development of the industry.

"Deep thinking is more important than diligence." Deep thinking is based on a deeper understanding of the nature of things. Internet + technology is integrated into the tourism service industry to form a new round of innovation convergence. The new service system that combines the Internet + technology and tourism public products is released by the media which is the center of it.

It not only contains the news dissemination ability of new media, but also covers the real-time experience attribute of virtual tourism. It plays a role in beautifying the image of tourism public products to a certain extent and stimulating tourism demands. Relying on the operating platform of Wechat, Micro-blog and other self-media, the virtual three-dimensional stereoscopic images of different scenic spots can be projected to realize the technical union.

Tourism micro-blog itself should be a psychological distance recorder for the audience when they travel. It has some similarities with the "Xiaomi bracelet" at present. It can record the tourists' travel experience accurately and promptly. On one hand to ensure prompt coverage of information and instantaneous transmission of accuracy is particularly prominent; on the other hand, traditional tourism products can not form prompt interactive communication between service and tourists. This understanding bias can be narrowed in the use of micro-blog gradually. At this time the tourism micro-blog platform plays a role as a link so that tourism enterprises and tourist service providers can quickly discover the shortcomings in the supply process of tourism products and the consumption contradictions between tourists.

Nowadays, many scenic spots should choose the way of micro-blog and Wechat jointly operating from the media to stabilize the young consumers. Under the network mode of this kind of joint marketing, tourism products which is a special and non-transferable spiritual service product can display their own service ability through a large amount of graphic information to influence the decision-making behavior of tourists.

Virtual and reality are always in two kinds of time and space, and virtual tourism and real tourism can not really replace each other, but they can complement each other. As far as virtual tourism is concerned, it will let real tourism see a better itself. Virtual tourism depicts the tourism environment of high quality and beauty in virtual time and space, which can become the contrast of real tourism environment to improve management and operation. On the other hand, virtual tourism should also promote. Innovation of marketing mode of real tourism. At this stage, virtual tourism should



simulate the "customs clearance" mode by establishing a network tourism community constantly showing the real environment and reality of a tourist destination to attract a large number of young tourists.

Tourism resources have always been the solid source of the development of the tourism industry, especially part of the precious historical and cultural heritage. Once eroded and corrupted, it will not be restored, and it also indirectly affects the tourism activities of tourists. The development of virtual tourism is a good doctor for tourism resources. this can the probability of human destruction of tourism resources can be reduced, such as Yinxu ancient tombs, Longmen Grottoes, pottery figurines and so on through it to achieve visual virtual, with 3D technology to reproduce the true nature of tourism resources. In this way, virtual tourism not only realizes the regeneration of tourism resources and guarantees the exploration of tourists' humanistic feelings, but also it makes the tourism value of tourism resources burst out again.

The most attractive place of virtual tourism is experiencing. The 3D setting of virtual tourism can be put on constantly in the circle of friends on micro-blog, hot search, the circle of friends on Wechat and public accounts, which can maximize the publicizing rate and promotion rate of virtual tourism. Travel service system can be widely covered in the daily life of different levels of consumers to achieve innovative development of tourism public goods.

In terms of tourism resources, this service system will devote itself to the regeneration of tourism resources. Through sensory experience, tourists will form a preliminary cognition of tourism scenes to strengthen their awareness of protection of tourism resources and promote the sustainable development of tourism resources. Interaction with service providers and agents promotes the clarity of tourism needs. In the aspect of industry management, tourism providers should be able to accept the supervision of public opinion from tourists to protect and improve the environment of tourist destinations and ensure the environmental quality of scenic spots to enrich tourism information from content and ensure the healthy operation of the industry. In terms of product service, combining with the interactive mode of micro-blog and micro-letter we can excavate the unique advantages of scenic products to highlight them in the description of virtual reality and arouse the spiritual resonance of the vast number of tourism enthusiasts.

#### 6. Conclusion

Through research, this article takes Internet + as the main entry point, combining with the development of tourism public products and analyzes the development status of product design of tourism portal website, tourism mobile phone App, tourism new media and so on. At the same time, it pays attention to the two major concepts of smart tourism and virtual tourism. It is found that there are three main problems in the design concept of tourism public goods: serious solidification of thinking, low level of sustained support from users, and obvious insufficiency of characteristic consciousness. On this basis, the paper proposes the combination of Web site, smart phone App and intelligent tourism. And the combination of new media and virtual tourism with the two new development strategies are to integrate product design with the concept innovation to build a new round of tourism public product service system under the background of Internet plus.

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#### References

- [1] Cheng Cen. Research on Mobile Phone Application Development Based on User Preferences [D]. Shanghai: East China Normal University, 2015.
- [2] Deng Xianfeng, Zhang Xiaohai. Research on the Overall Framework of "Intelligent Tourism" in Nanjing [J]. Tourism Forum, 2012, 5 (5): 72-76.
- [3] Dong Peihai. Interpretation of "Tourism Public Service System"----Comment on the Construction of China's Tourism Public Service System [J]. Tourism Research, 2010, 12, 2 (4): 86-90.
- [4] Fereshte Rasty, Chia-Jung Chou, Davood Feiz. The Impact of Internet Travel Advertising Design, Tourists' Attitude, and Internet Travel Advertising Effect on Tourists' Purchase Intention: The Moderating Role of Involvement [J]. Journal of Travel & Tourism Marketing, 2013, 30(5): 482-496.
- [5] Hu Han, Jiang Bin. Based on the "Internet +" Era, the o2o Mode Entrepreneurship of College Students Explores [J]. Modern Economic Information, 2015 (18):321 323.
- [6] Huang Shiyu. A Study of the Government's Management and Role in Tourism Public Goods in Economically Developed Areas [J]. Market Modernization, 2007, 525, 12 (2): 232-233.
- [7] Juho Antti Pesonen. Targeting Rural Tourists in the Internet: Comparing Travel Motivation and Activity-Based Segments[J]. Journal of Travel & Tourism Marketing, 2015, 32(3):211-226.
- [8] Liao Guangfei. Research on Tourism E-business Platform Based on Web Services [D]. Hefei, HeFei University of Technology, 2006.
- [9] Lin Haojun. Supply Chain Ideas in the Innovation of Tourism Enterprises [J]. Economic Guide, 2007, 6 (1):84-86.
- [10] Liu Xianxian, Feng Xing. Research on Social Network Development and Marketing Mode under the Background of "Internet +" [J]. News Knowledge, 2015 (8): 60-61.
- [11] Liu Lihua. Reconstruction of Tourism Service Industry under the Background of "Internet + Tourism" [J]. Business Economics Research, 2015 (26)
- [12] Liu Guotao. Ctrip Profit Model Research [D]. Shanghai: East China University of Science and Technology, 2013.
- [13] Min Wei. Analysis of Information Systems Applied to Evaluating Tourism Service Quality Based on Organizational Impact[J]. Journal of Software, 2012, 7(3):599-607.
- [14] Nie Xuedong.An Analysis of Digital Tourism, Virtual Tourism and Intelligent Tourism[J].Economic Forum, 2013, 2(2): 107-109.
- [15] Pirita Ihamäki.Geocachers: the Creative Tourism Experience[J].Journal of Hospitality and Tourism Technology,2012,3(3):152-175.
- [16] Sajad Rezaei, Faizan Ali, Muslim Amin, et al. Online Impulse Buying of Tourism Products [J]. Journal of Hospitality and Tourism Technology, 2016, 7(1):60-83
- [17] Yuan min. Research on Theme Experience Operation of Econo Hotel under the Background of "Internet +" [J]. "value engineering", 2015 (32): 208 209.
- [18] Yu Chih Huang, Kenneth Frank Backman, Sheila J. Backman, etal. Exploring the Implications of Virtual Reality Technology in Tourism Marketing: An Integrated Research Framework [J]. Int. J. Tourism Res, 2016, 18(2):116-128.