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Research on the Construction and Communication of Chengdu's City Image in the Era of "Big Data, Intelligence, Mobile Internet, Cloud Computing"

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***Abstract**: Building a good city image has a more diverse and richer communication content in the context of the era of big intelligence and cloud. In this new environment, city image communication faces a comprehensive transformation, and the new communication environment is both a challenge to communication methods and an innovative integration of communication technologies. Smart technologies including artificial intelligence, cloud computing, big data and other technologies continue to advance the development of cities. As a mega-center city in western China, the communication of Chengdu's city image must also explore new paths. This paper proposes a concept for the communication strategy of Chengdu's city image in the intelligent environment from the overall development direction of Chengdu, and makes feasible suggestions for promoting the image communication of Chengdu as a national center city.*

***Keywords**: Big Data; Intelligence; Mobile Internet; Cloud Computing; City image; Chengdu*

Introduction

In August 2013, at the Internet Conference of China, Wu Hequan proposed a new concept of "big smart mobile cloud", which integrates big data, cloud computing and the Internet of Things together. It refers to the era of big data, intelligence, mobile Internet and cloud computing. Cloud computing, big data and other information technologies intermingle and permeate, not only changing people's lives, but also expected to set off a new round of industrial change.

With the development of urbanization in China, the communication of city image is increasingly important. Chengdu is one of the cities with the highest level of economic development in the western inland region, combining the functions of economic center, financial center, science and technology center, cultural and creative center, external communication center and comprehensive transportation hub in the west. In the context of the era of big intelligence and cloud, the city is evolving into a computing-driven online information system with everything connected. The trend of intelligence and computing drive is constantly shaping the future shape of the city, and the communication (Lv & Liu, 2020) methods are more intelligent and diversified, reconstructing the new image of the smart city, providing new momentum for the

development of the city, and driving the comprehensive transformation of the city image communication.

Literation Review

"City Image"

The construction of a city's image plays a crucial role in the development of a city. In the field of communication, the study of the image of a city, from the image of a country to the image of a town, has provided a wealth of information for the production of knowledge, often focusing on the role of the media in the construction of the image of a particular region. Before the Internet was widely used, the main focus of city image shaping was on the objective distribution of urban space, such as some tourism public service advertisements placed on TV, newspapers and other traditional media; after the emergence of intelligent contexts, city image communication began to lean toward the new Internet media. The city image in the virtual social space on the Internet is enriched and processed by the users' content creation on social media and other APPs, such as dialects and special snacks, in addition to the propaganda of the government departments on their own two micro-brands and media matrix.

What is behind the city image is not only the landscape of the whole city, but also the identity of the residents and the cultural communication after the city culture. Kevin Lynch, a famous American humanist theorist, first proposed the concept of "city image", and pointed out in his book "City Form" that "city image is the comprehensive feeling of people towards the city", which is the perception of people towards the physical environment of the city and the formation of mental imagery (Chen, 2010). The construction process of city image is essentially the interaction process between the structural material environment of a city and its residents. As a collection of geographic, political, economic, social and cultural characteristics of a city, there is an obvious interaction between city image and media narrative.

For example, some scholars use modern books and periodicals as the texts of city image investigation, describing how the image of "Shanghai" has been promoted through newspapers and books into a national and universal knowledge of Shanghai city, and even an ideology and fable of the Chinese state since the modern era, in order to constitute a holistic perception of Shanghai's city image. Some scholars have explored the role of the Shanghai World Expo, a landscaped urban event, in the construction of the city's image and its embodied violence from a critical perspective; others have studied Chi Li's novel's reproduction of Wuhan's "citizen class" and its life, as well as the different forms of "jianghu characters" who transcend the mundane and their "More scholars analyze the image of the city based on video texts, such as Sun Wei's study of "Shanghai in the Mirror", which discusses the subversion and subversion of the relationship between people and the city by video as a special mode of communication. For example, Sun Wei's study of "Shanghai in the Mirror" discusses the subversion and reconstruction of the relationship between people and cities through images as a special mode of communication. In addition to the physical imagery in urban space, such as architecture, transportation, costumes, customs, etc., which can most directly demonstrate the image of the city, urban novels, urban films, urban documentaries, urban propaganda films, etc. are all narrative media of the city image, which internalize the city as "imaginary geography" in their works. Thus, the story of the city is told through a series of recognizable narrative symbols such as words, sounds, pictures and images, thus

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providing people with another way to understand the natural geographical landscape, historical and cultural heritage, local customs, and civic values of the city.

The definition given by Chinese scholar Han Jun is more inclined to the media role of city image:City image is artificially determined and is an identification with the city. Mass media, personal experience, interpersonal communication, memory and environment all influence people's subjective impression of a city. However, early studies on city image still stay more on city planning and pay less attention to the cultural connotation and identity of the city. With the development of Internet technology, the communication process of city image has also begun to change gradually.

Positioning of Chengdu City Image Communication

Kevin Lynch believes that any city has a public impression, which is a combination of many individual impressions; or a series of public impressions, each of which is shared by a certain number of citizens. The publicity of our cities can be seen from the CCTV advertisements. From "Charming Guangdong" to "Colorful Yunnan", from "Welcome to Hospitable Shandong" to "Paradise on Earth, at home in Suzhou ", each city is well versed in mining its own characteristics, find the right city positioning of the rules of publicity. In the context of continuous technological development, the shaping of city image needs to change the original way of thinking and expression, based on the city's own characteristics, revitalize the city's humanistic accumulation.

The city image of Chengdu can be divided into multi-directional positioning, historical positioning can be called Shu Capital, Chengdu, the Land of Heaven, Turtle City, Lesser City, Rong City, Jin City, etc.; official positioning is the capital city of Sichuan Province, the central city of the southwest region, the famous city of the country, the international city with expanding influence; media positioning is the fourth city of China, the city that you come and do not want to leave, the Garden of Eden of the East, the modern idyllic city of the world The media has positioned Chengdu as the fourth city of China, the city you won't want to leave, the Eden of the East, the modern idyllic city of the world, the most comfortable city, and the civil positioning as the capital of leisure, the capital of comfort, the dream capital of Shu, the capital of food, the capital of play, etc. However, if Chengdu wants to stand out among other cities, it must fully understand its own strengths and weaknesses, innovate itself, find the right city positioning, dig deeper into the value of its advantageous resources, and create an international city brand with the help of a strategic combination of all media. Chengdu has a number of cultural resources such as giant pandas, Jinli, Kuanzhai Alley, Sichuan opera, Sichuan cuisine, Jinsha ruins, etc. It can differentiate itself from other cities, create city brands and IPs, take advantage of the hometown of pandas, take the path of an international city, and deepen the construction of international communication capacity (Zhao, 2020).

Chengdu has established the strategic goal of "three steps" in the new era, clearly defined the strategic positioning of "building a national central city, a beautiful and livable park city, an international gateway city and a world famous cultural city", and is accelerating the construction of a city that comprehensively embodies the new development concept. Seizing the opportunity of rapid development of all-media, Chengdu has systematically planned its image positioning in the world city system in recent years, systematically shaped the value, temperament and vitality of the city in the international context, and is integrating the strength of multiple departments and forming a linkage mechanism, striving to build a "chess" pattern

for international communication of the city image. Through extensive demonstration and dissemination, the vision of Chengdu's development has been clearly depicted to citizens and all sectors of society. This development positioning system is conducive to exploring the image elements that reflect the spirit of Chengdu and are widely recognized internationally and domestically among the city's rich urban resources, and to strengthen Chengdu's city branding characteristics through international communication based on differentiated advantageous elements (Sun, 2020).

Results

Characteristic Elements of Chengdu City Image Communication

The spirit of the 19th Party Congress says that cities should solve the problem of inadequate and unbalanced development, and that cities are designed to meet people's needs for a better life, so Chengdu aims to build a high-quality and livable city. The national "Chengdu-Chongqing City Cluster Development Plan" specifies that Chengdu "aims to build a national central city", and Tang Peng, vice president of Chengdu Urban Planning and Design Institute, also emphasizes that Chengdu, as the capital city of the province, should not be bigger but more refined, so as to drive the surrounding cities to develop together.

Chengdu city space butterfly change, the rise of the new city in the east. In the past, the urban pattern of Chengdu was that the two mountains, Longmen Mountain and Longquan Mountain, were sandwiched between the central city, called the two mountains sandwiching a city. Life and production were confined to this space, and the environmental capacity was overloaded. Nowadays, with the opportunity to put Jinyang under the administration of Chengdu, the new city in the east is rising rapidly, and the whole city's pattern has changed: one mountain with two wings. On one side is the central city, and on the other side is the new eastern city district (Yan, Zhou & Zeng, 2020).

In the context of "One Belt, One Road" and "two-way opening" and other major strategies, Chengdu will move from the inland to the gateway, from the traditional back to the front. Relying on the "one city and two fields", Chengdu will build an international aviation hub. Chengdu is the closest central city to Europe, only 10 hours to Frankfurt, 2 hours less than Beijing, Shanghai, Guangzhou and Shenzhen. The 1,000-km hinterland around Chengdu has a population of over 500 million and a GDP of over 15 trillion, and can radiate to Southeast Asia, providing a stable source of passenger and cargo support. Chengdu's international gateway hub status is becoming more and more prominent, forming an international route network covering five continents: Europe, the United States, Australia, Africa and Asia.

In terms of domestic transportation, Chengdu is an important hub city of the national "eight vertical and eight horizontal" high-speed railway network, which connects Xi'an, Kunming, Guiyang, Lanzhou, Wuhan and other cities in four hours through Beijing-Kunming, Lanzhou-Guangzhou and Yanjiang lines, and realizes the seamless connection between the aviation hub and the high-speed railway hub. Chengdu's future traffic pattern will build a national railway trunk line, national railway bus operation line, and urban rail three railway integration urban rail transportation system.

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Economic Development Image Elements

Urban vitality is steadily increasing and market confidence continues to grow. The new economy represents a new techno-economic paradigm, the core of which is the progress of production methods and economic structure changes driven by new technologies, providing opportunities for the mid-western region to achieve leapfrog economic development. As one of the nine national central cities in China, Chengdu has taken the development of the new economy as an important strategic direction for strategic transformation of the city, bending the curve of economic development and building competitive advantages. Under the guidance of various policies, the new economy development in Chengdu has been surging and energetic, ranking top in the Caixin China New Economy Index for a long time and becoming a sample of the regional new economy development.

Chengdu should build an international gateway hub with a global perspective, and make every effort to promote four-way expansion and full-area opening. To build a world famous tourism city from a high starting point, it is necessary to promote the construction of all-area tourism from an international tourism perspective, build an international quality and diversified tourism product system, improve the international tourism service and marketing system, and enhance the global influence and brand appeal of projects such as Panda Planet, Jiaozi Park and Tianfu Greenway.

Natural Cultural Image Elements

General Secretary Xi said, "Humanistic heritage is part of the life of a city." The humanistic heritage of a city accumulates the deepest spiritual pursuit of the city and represents the unique spiritual identity of the city. The overall image of the city is created and maintained by each citizen, and the speech, mannerisms and lifestyle of each citizen are the reflection of the city's image on an individual basis. The vitality of culture in the city brand image is not only in the written knowledge or screen images, but also depends on the spiritual outlook of each citizen and the common thinking of the city, so that the city brand image will be full of dynamic vitality.

Chengdu has a long history of culture and is known as the "Land of Heaven", the "South of the South" and the "Suzhou and Hangzhou". Among them, Du Fu Cao Tang, Wuhou Ancestral Hall, Wangjiang Tower, Shu King's Mausoleum, Yongling Mausoleum, Jinsha Ancient Shu Cultural Site, etc. are famous in China and abroad. The culture that distinguishes a city from other cities is not only the culture of historical accumulation. For example, Hangzhou's "e-commerce culture" and Shenzhen's "Internet culture" are also newly emerged cultures, but they are profound enough and prominent enough to be used as the image of a city. Therefore, the appearance of the city and the prominent culture are very important for the image positioning of the city. Especially in the era when smart media is so popular, it is urgent to use smart media to communicate the appearance of a city and shape the image positioning of a city. Just as McCombes proposed agenda-setting followed by attribute agenda-setting, media shaping the image positioning of a city is to some extent equivalent to attribute agenda-setting. Certain attributes of a city that are highly visible and communicative are singled out and communicated as the main image of the city. Other image attributes of the city are diluted to make a certain attribute of the city more prominent. For example, Chengdu is a new type

of net-celebrity city, which reflects the fashion sense of the city, and beauty, hot pot, panda and chili become synonymous with Chengdu. Through smart media, Chengdu has become a "Netflix city" and a very inclusive city.

Space Post-image Elements

In recent years, Chengdu's urban spatial layout has been adjusted, the industrial layout and development direction have become clearer, the path of investment around the ecosystem has become clearer, and the increasing investment attractiveness has brought capital from all walks of life. The 13th Party Congress of Chengdu put forward a new urban spatial pattern of "eastward, southward, westward, westward, northward, and mid-perfect", and will accelerate the preparation of strategic planning for the five sub-regions in accordance with the "cross" policy. The "Eastward" area is an international gateway, an industrial new city and a new space for sustainable development of the city in the overall development pattern. "Southward" is the new engine of innovation-driven development. "West control" is an important guarantee for the city's ecological localization and sustainable development. The "North Reform" maintains the identity of the city, forming a demonstration area for urban renewal and a transformation area for industrial development. The core of "Central Excellence" is to inherit the civilization of Ba Shu, develop the culture of Tian Fu, and maintain and highlight the historical and cultural characteristics of Chengdu. Chengdu is the only city of 10 million people in the world that can look at snow-capped mountains above 5,000 meters, and is building a model park city area that practices the new development concept. From space construction to scene creation, from ecology to industry, from production methods to lifestyle, park city construction is an active exploration of a new path to reshape urban values in the new era. Efforts are being made to build Chengdu into a more prosperous, livable, open, inclusive and culturally attractive international Chengdu metropolitan area in order to attract more quality enterprises and quality talents to join.

Discussion

Study on the Strategy of Chengdu City Image Communication

Currently, city image shaping and communication is undergoing a new round of transformation and upgrading. City image is no longer simple propaganda and promotion, but the optimal allocation of city quality resources from the height of city development strategy, shaping the city image in communication, improving the city quality in shaping, and promoting the high quality development of the city. Image communication is not an end, but a core means to promote the economic and social development of the city, and the benefits brought by image communication will eventually be returned to the city.

The Present is the Future, to Create a New Smart City of the Future

The Chengdu Municipal People's Government issued the "Chengdu Smart City Construction Action Plan (2020-2022)", which clearly defines the action framework for the construction of a smart city in Chengdu: a "city brain", a data resource center, a set of intelligent infrastructure, five intelligent application systems, three Support system data will become the most critical productivity in the future." In order to accelerate

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the construction of Chengdu's smart city, the city will fully utilize big data, cloud computing, artificial intelligence and other cutting-edge technologies to promote innovation in urban governance mode and modernization of urban governance system and governance capacity. Based on intelligent infrastructure, "city brain" as the intelligent hub, build application development ecology and innovation support system, network security management and protection system, smart city standards and specification system, based on a unified data resource center to connect and converge all kinds of city operation data, support government services, city operation, life services, and It will support government services, city operation, life services, risk prevention and control, and industrial development wisdom applications, and realize benefits to people, enterprises, good governance, and industry.

The Assessment Report on the Development Level of China's Smart Cities shows that relative to the development level of Beijing and Shanghai, the development level of Chengdu's smart cities is in a catch-up position, alongside Wuxi and Hangzhou. According to Stiglitz, the Nobel laureate in economics, urbanization in China and high-tech development in the United States will be the two major themes that will profoundly affect human development in the century. This means that the development path of urbanization follows an intelligent path supported by high technology. Urban intelligence not only optimizes the development of the city in a comprehensive way, but also optimizes the image of the city and its communication in an all-round way (Zhang, 2020). We will use intelligent technology to promote the improvement of Chengdu's urban software facilities, to show the public a veritable "city you don't want to leave after coming here" style, to show a new first-tier city style of developed technology, and to form a new business card of intelligent Chengdu.

Play a Leading Role in the Government, the Overall Planning of Urban Construction

In a sense, the government's policy guidance is an important force to ensure the city's image, such as the city's transportation system, drainage system, and policies to benefit the people, etc. These public measures and activities led by the government are the basic elements of the city's image. For Chengdu, the park city is a strategy and goal for the city's development, especially it is very important for the city branding of Chengdu. Chengdu's urban planning is a combination of hard and soft, and the city's past development in circles tends to form a "hard" structure that needs to be "softened" by parks, integrating the industrial areas, residential areas and green environments of the past, and integrating the city with the parks. Specific measures can be taken to create an urban innovation and entrepreneurship ecosystem, strengthen the innovation and entrepreneurship support system, promote the cross-border integration of culture and creativity, enhance the influence of the culture and creativity industry, and develop the city's brand cultural resources in a multi-faceted and deeper way to help Chengdu move from a quality city to a brand city. The Chengdu pattern needs to be further enlarged to optimize the spatial organization with the metropolitan area as the guide, to enhance the development capacity and comprehensive competitiveness of Chongqing's main city and Chengdu, to promote the transformation of urban development from outward expansion to inward enhancement, and to form an integrated development metropolitan area with its neighbors.

Integrated Use of a Variety of Communication Channels, Pay Attention to Urban Marketing Methods

The city image communication in the era of full media should do a good job of top-level design, firmly grasp the development trend of mobile Internet, boldly try various new media platforms, keep pace with the development of 5G and integrated media, coordinate multiple resources, make good use of cultural capital, but also have economic support, political breakthroughs, highlighting urban development, mass media to the dissemination and shaping of the city image is the extraction of the city's "cultural capital", and "cultural capital" can bring good reputation to the city. The mass media's communication and shaping of the city's image is the extraction of the city's "cultural capital", and "cultural capital" can bring good reputation to the city, and a good image of the city can bring continuous tourism income, promote its infrastructure construction, and thus enhance the city's soft power (Liu & Li, 2016). New media is an important means of other communication (Liu & Hu, 2015). The important force of his communication comes from the grassroots, so the folk power becomes the backbone of proactive communication of city image, and is the main force to activate the breadth of the propaganda city. In the new media context, everyone is both the communicator and the recipient. In the atmosphere of universal participation, back to their main role, in the city image publicity will naturally produce the desire for the role of ownership.

Focus on city brand marketing, good at using major events to spread the city image. Event marketing can quickly enhance the visibility and reputation of the city's brand. Among them, international sports events and major international festivals are the most popular brand items in event marketing, and Chengdu should make full use of the major event marketing model to actively promote Chengdu's brand image in the international community. In the future, Chengdu will host high-profile, international, citizen-friendly international events such as the 2021 World University Games and the 2025 World Games, which not only present Chengdu's resounding steps towards becoming a first-class domestic and internationally renowned event city, but also reflect Chengdu's confidence in presenting its image to the world and its determination to integrate into the world.

Promote the Development of the City and Realize the "Chengdu Breakthrough" of International Image Communication

Chengdu has become an important pivot point for western China to connect to the world and to the globe. Chengdu's road to internationalization needs to find the right focus breakthrough. Thinking in the context of globalization, the development experience of international cities shows that as cities around the world become more and more similar, with more and more similar facilities and functions to offer, it becomes more important for cities to seek different ways to present themselves in order to attract and retain suitable businesses, tourists and residents, and usher in greater development. In a foreign media survey of a sample of 100 average Americans, almost everyone knew about pandas, but none knew about Sichuan or Chengdu. Tourism resources are a prerequisite for a city's developed tourism industry, and one of the vehicles for the city's image communication. The huge fame of the panda overseas can be used to expand the number of foreign visitors to Chengdu, allowing the city to go global and thus enhance the city's international imaginary reputation. Internet social media has become an important arena for international opinion circulation, and

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Chengdu must amplify its voice in the international information flow. Relying on the Chengdu accounts set up on international social media platforms, we can deeply tap into the inner emotional needs of international audiences and focus on the Chengdu story.

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