Information Interactive Design Method for Smart City Construction

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Abstract. Information interaction design leads the healthy development of smart city construction. Information interaction design intersects with various disciplines and is related to "a kind of conscious information control activity". It is committed to the reasonable control and arrangement of information, "it pays close attention to the whole process of information expression, processing, retrieval, identification and communication activities", so as to achieve the effective, convenient and accurate information transmission.

Key words: smart city, information interaction design, Hengshui

1. The concept source of smart city
The concept of "smart city" is based on the concept of "smart earth", which advocates all-round connection and deep connectivity with information technology as the core in the world, "smart city" takes urbanization as the starting point, embodies digital information in all aspects of urbanization construction, "smart city" creates favorable conditions for the realization of "smart earth". When "smart city" becomes a reality, "smart" becomes a symbol throughout every corner of the urban system. Due to the correct implementation of the information interaction design method[1], residents make "smart" analysis through the "smart" approach and get "smart" results. "Smart city" is closely related to information and digitalization, but "smart city" is not equal to "digital city", "information city", and "smart city" is not only the embodiment of information technology, which contains many aspects of ecology, human culture and humanity[2]. As the receiver of the city - urban residents, we should first consider in the construction of smart city The intelligent life style of residents is the core of smart city construction. Market scale and forecast of smart city in China from 2017 to 2021 refer to figure1.
2. Background and conditions of Hengshui smart city construction

The report of the 18th National Congress of the Communist Party of China pointed out: "we should adhere to the path of new industrialization, informatization, urbanization and agricultural modernization with Chinese characteristics, and promote the synchronous development of industrialization, informatization, urbanization and agricultural modernization."[3]. The construction of smart city conforms to the trend of the times, and also reflects the country's grand aspiration for urban development. With the arrival of the information society, Hengshui City keeps up with the pace of the times and has achieved phased results in the construction of urban informatization. "As early as 2011, Hengshui e-government development plan for 2011-2015 was formulated and issued; in September 2012, Hengshui was identified as one of the first 20 start-up cities of" Smart Life "; on July 19, 2013, Hengshui municipal government and Hebei Unicom signed a strategic cooperation agreement on the construction of" smart city "; on April 22, 2014, Hengshui municipal government office, Hengshui Municipal Bureau of industry and information technology and Hengshui Unicom The "Hengshui Smart City Promotion Association" jointly initiated and registered by the Municipal Civil Affairs Bureau was officially established, and the first seminar was held [4]. " Proportion of smart cities in China refer to figure2.
3. The guidance method of information interaction design to the construction of smart city.

When the government and relevant departments carry out the overall planning of smart city, they should clearly focus on the residents, point out the key content of the construction on the premise of improving the residents' life style, and integrate the links between various sub contents, so as to realize the link between information and facilities -- technicality in a global perspective, which is the basic condition for building smart city. Provide technical support for smart city with "4G, home optical broadband coverage, cloud platform, smart city management and control system and other information tools" [5].

The most important thing of information interaction design is to take the user as the center, and fully consider the needs of people who use interactive products or interactive systems, so as to make the information transmission faster and the dialogue between residents and the city smoother [6]. Although design can not increase the amount of information, but design can make information more orderly and humanized, which to a certain extent increases the density and intensity of information, so as to create the best possibility for information exchange. Richard ruchan once defined interaction design as "creating and supporting human behavior through product's media function". 5 this definition defined "human behavior" as the core element of interaction design, which is different from industrial society. People act on the environment, and the environment responds to people. This series of behavior process produces interaction.

4. The process of information interaction design in the construction of smart city.

Information interaction design involves various fields of smart city construction, including: physical city to virtual city; external form of operating system to information interaction design of internal program; from the design of things to the design of information interaction between people and things, people and environment, etc., building smart city is not for the purpose of high-tech information transmission, but for the purpose of improving the life style of urban residents Ren, to provide residents with a moderate, appropriate, humanized and intelligent way of information exchange. Therefore, a reasonable information interaction design framework should be carried out from the following aspects.

4.1 Information collection and network transmission

Accurately and timely mastering the information of public space becomes the first step of information
interaction design in smart city. Information can be collected through the information tools that ordinary citizens have been accustomed to using, such as smart phones. Through the intelligent equipment specially designed for collecting information, we can finally realize the comprehensive information collection for the natural and artificial environment.

The purpose of information collection is to integrate and transmit information, to interconnect and share data through a variety of technical communication networks, and to achieve efficient and accurate information resources.

4.2. Information integration and information interaction

Information integration forms intelligent information service and information management through the analysis and processing of information. It mainly consists of "public integrated application platform, application system for government, application system for Industry and information platform for public service". In the complex system of "smart city", the interaction effect of information directly determines the city's "happiness index", "smart city management index" and "smart city social responsibility index". Urban residents realize the connection and exchange of people and things in their lives through the interaction of information, which is manifested in all corners of the city, such as hospitals, schools, streets, etc.

5. Conclusion

Smart city will have a profound impact on the lifestyle and behavior of urban residents. In the future, urban residents will experience a more intelligent information exchange mode under the information interaction design. The urban life experience of residents will have a qualitative change. Residents will not feel at a loss because of information technology. The information interaction design is deeply integrated with various fields such as economy and humanities. Environment will be fully perceived and interconnected, and urban life will become "intelligent", "green" and "harmonious".

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