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Installation and Design of Intelligent Communication Platforms in Public Space

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Abstract. With the continuous progress of science and technology and the strong help of big data technology, the change of the new media industry with artificial intelligence technology as the core has highlighted the trend of rapid change and prosperity, which is characterised by the reset and optimisation of the intrinsic structure of the media industry, the endogenous dynamics and the mode of dissemination, and with the help of the pulsating and virtualised form of the production of information products as well as the embedding of the new concepts of appearance design, the "appearance" of media products has shown a magical and ever-changing state, taking into account the full perspective and the essence of fragmentation. With the pulsation and virtualisation of information products and the embedding of new concepts of appearance design, the "appearance" of media products has shown a magical state of change, taking into account the essence of full perspective and fragmentation, and ultimately, under the leadership of the principle of orientation and media business, it has continuously transformed, upgraded and subverted the audience's solidified imagination, forming a new structure of the intelligent media industry and reshaping the new brand of media organisations.

Keywords: Intelligent Media; Public Space; Media Platform Art & Design; Smart City; Total Media.

1. Introduction

Paper media, audio media, picture media and new media "system" with computers and mobile phones as carriers, after years of mutual "struggle", it is obvious that the new media backed by the Internet has prevailed, although its authority will often be criticised by the audience, but the new media unique timely, convenient, low-ranking, integration and other advantages still harvest the majority of the audience "willing". Although its authority is often criticised by the audience, the new media's unique advantages of timeliness, convenience, low-ranking, integration and so on have still harvested the majority of the audience's "willingness".

The new media in the digital era is a product of intelligent technology, media products and communication channels, which has really allowed the media to enter the era of intelligent media. A significant feature of intelligent media is that the audience can read the news anywhere and know all the information they want to know at any time.

2. The Road to Change in the Dissemination of Information in Urban Public Spaces

2.1. Intelligent Media Overview and External Characteristics

2.1.1. Awareness of Intelligent Media

Intelligent media is a new media model that combines the advantages of traditional media, new media, Internet, cloud computing and big data technology.

With the continuous progress of science and technology and the strong assistance of 5G technology, the new media industry with artificial intelligence technology as the core has highlighted the advantages of the new era, which is characterised by the reset and improvement of the internal structure and endogenous power of the media industry, and with the pulsating and virtualised production form of the information products, the "appearance" of the media products, under the

auspices of the new concepts of the times, has shown a magical and ever-changing state, and is compatible with the full perspective and fragmentation. With the new concept of design of the times, the "appearance" of the media products shows a magical state of change, and is compatible with the essence of the full perspective and fragmentation, and ultimately transforms and upgrades under the guidance of the principle of orientation and the media business, constantly subverts the audience's solidified imagination, and ultimately forms a new structure of the intelligent media industry and reshapes the new brand of the media organisation.

2.1.2. The External Form of Intelligent Media

A smartphone, a smart TV, a computer with Internet connection and a smart display screen are all smart media platforms or carriers. In addition to mobile phones, televisions, computers and other carriers, most of the smart communication platforms in public spaces with strong openness are also the external forms of smart media. These "customised" communication platforms, which are based on convenience, visibility, aesthetics and controllability, have enhanced the reach of media products. Coverage.

2.2. The Need and Relevance of Encrypted Public Space Communication

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2.2.1. Definition of Public Space

Public space, in the broad sense, refers to man-made or naturally occurring spaces of a certain size or breadth that the public can freely access and move around. In a narrow sense, public space is mainly confined to the interior of urban buildings or public space purposely set up in urban design. Such as large city parks, iconic squares, school campuses, stadiums, conference centres, car parks, shopping malls, swimming pools, cinemas, etc.; small street corners, hotels and restaurants, coffee houses, reading rooms, etc.. The main function of modern urban public space is to facilitate urban residents to live and work in communication, and to facilitate the process of urban management to hold a variety of large-scale activities in the open space.

2.2.2. The Necessity and Relevance of Installing Intelligent Media Platforms in Public Spaces

Intelligent media are embedded in the mass media. Intelligent media, like mass media, not only shoulders the mission of guiding social opinion objectively and correctly, but also has the functions of promoting economic development, widely disseminating knowledge and influencing the public's way of production and life.

The open public space built in the city is a product of the continuous progress of society and development of the city, and it is a general term for the places where different levels of the public meet, relax, interact and do things. The public can make timely response and judgement on all issues of their concern in different public spaces, and they can also freely, rationally and openly discuss or explore some of their concerns about policies, regulations, or social functionality construction and other topics through the gathering of this feature. The public nature of the public space, the frequency of the flow of public personnel and information flow base, but also endowed with the communication function of the public space, this basic feature confirms the necessity and importance of setting up an intelligent communication platform in the public space. In addition, in the space of mass media platform embedded with intelligent media characteristics, it can also form the form of one-way target communication, two-way or even multi-directional interactive communication, which also provides the reasons and prerequisites for setting up an intelligent media platform window in the public space,

and from this point of view, it also fully explains the social needs and practical significance of setting up an intelligent communication platform in the public space.

3. Design of Communication Channels in Public Space in the Age of Big Data

Along with the continuous improvement of urban quality and the increasing number of urban space point base, the functional construction of public space is also chasing the pace of science and technology innovation to climb up and advance. Urban construction work is orientated towards green environmental protection, warmth and comfort as the goal, and harmony and sharing as the character, to create a modern smart city in the true sense of the word. The design of all kinds of public space, which is endowed with the connotation elements of the smart city, gives back to the excellent temperament of the urban environment and the unique charm of the city's taste.

3.1. Urban Environmental Design Should Provide Sufficient Expansion Conditions for Information Dissemination in Public Space

3.1.1. Urban Vitality Reflects the Quality of the Design of the Urban Spatial Environment

The vitality of a city is one of the indicators of its strengths and weaknesses. Intuitive urban vitality is reflected in the city's iconic plazas, quality parks, distinctive neighbourhoods, theme halls and other public spaces.

For the majority of urban residents, public space is the appearance of the city, where the temperament is, where the charm is, and where the interest orientation is. For the creation of a smart city, the layout and design of the spatial environment is not only a difficult task, but also a highlight.

3.1.2. Intelligent Communication Platforms are an Important Part of the Design of Urban Spatial Environments

To judge the attractiveness of a city, the city spirit is an unbreakable verification code, and the full city spirit is also presented in the space intelligent communication platform, high-quality columns, livelihood boards, function search and other public interfaces.

For the quality of the smart city, the intelligent communication carrier plays an important role, and it can be said that the setup and effectiveness of the intelligent communication carrier reflects the character, development, and future of a city, as well as the public's aspirations, so it is urgent to accelerate the full coverage and convenience of the intelligent communication platform.

3.1.3. Diversified Thinking on the Deployment of Intelligent Communication Platforms

Modern urban transformation and construction is like "creating" a beautiful painting, and the art of "white space" for the city outlines a variety of colourful levels and depth of meaning.

In a modern city, complexes, office buildings, commercial buildings, theatres, indoor swimming pools and other buildings and venues in the lobby, lift, meeting rooms, corridors, etc., these indoor public spaces have intelligent media external windows "reserved space" or have set up an intelligent communication platform windows. Open-air stadiums, urban rivers and lakes, large parks, small attractions, railway stations, underground stations, bus stops, city squares, residential neighbourhoods, intersections, etc., these outdoor public space "open space" is still more, can gradually accelerate the progress of the external intelligent communication platform windows.

3.2. Promoting Intelligent Communication Vehicles from Institutional Buildings to Public Space

With the advent of the big data era until the rapid evolution and expansion, intelligent communication carriers have long entered the specific public space, and play a certain functional role, but the obvious disadvantage is that the "small amount of power" or "single", and only serve a specific public group. public groups. For example, the large display screens in organ buildings and the monitors in the lift

rooms of commercial buildings all serve special "niche" groups and do not have a "significant" coverage rate.

Accelerating the intelligent communication carrier from the organ building to the public space, mainly lies in the government's attention, the establishment of rules and regulations, scientific guidance, mutual cooperation, supervision and implementation, from the smart city transformation design, construction of the overall layout of the early "injection" of big data, artificial intelligence, intelligent media factors, so that the results of the new era of science and innovation into the smart city! The development of the new era of science and innovation achievements into the smart city "bloodline", empowering the new era of urbanisation process steadily and far-reaching, and ultimately to achieve the goal of optimising the service of social development and optimising the service of the general public's life.

3.3. Layout Design and Application of Smart Media Carriers in Urban Public Space

3.3.1. The Basic Classification of Urban Public Space Intelligent Media Carrier

According to the concept of urban public space intelligent media carrier definition, the current urban public space intelligent communication carrier is basically divided into two categories, respectively, the building wall-mounted subsidiary type and independent floor type. According to its function, it can also be divided into interactive and ornamental; according to its application occasions, it can also be divided into outdoor LCD advertising screen, administrative navigation guide machine, famous scenery introduction machine, outdoor electronic newspaper reading board and intelligent bus electronic stop sign, etc.; according to its appearance and display mode, it can also be divided into horizontal, vertical, split-screen and so on.

3.3.2. Scientific Setting of Intelligent Media Carriers in Urban Public Space

Intelligent media carriers can be installed in different forms according to the different needs of the local area, which helps to maximise their functions in a targeted manner. However, its unification point is basically chosen in the place where the flow of people is most concentrated. The greatest effectiveness of the intelligent communication platform lies in the breadth of communication and a large audience, so the layout design and application is very important.

The layout design of intelligent media carriers in urban public space must be based on the urban environment and implement the planning method of classification, grading and zoning. The development orientation, development strategy, overall spatial structure and layout of each city in China are very different, so the layout of intelligent media carriers in public space in different cities has its own focus.

3.3.3. Reasonable Layout of Intelligent Media Carriers Should be Proportional to the Communication and Effectiveness.

As the material basis of mass media, the layout and application of intelligent media carriers in cities should be people-oriented, especially taking into account the broad needs of their audiences. Intelligent media carriers are basically based on intelligent communication platforms and large screens attached to buildings. According to the basic layout of modern urban outdoor iconic signage planning, it can be generally divided into display area, control area and prohibited area, in which the display area represents the city's business card, and the intelligent media carrier in the display area mainly highlights the characteristics of multi-level and diversified urban vitality places, and the basic content is mainly based on the image display, which creates the vibrant atmosphere of the city; The control zone is generally divided into two main sections, one is the loose control zone for public activities such as culture and sports, conventions and exhibitions, etc., and the other is the strict control zone for residential areas, science, education and health institutions. Intelligent media carriers in the loose control zone are mainly used for activities, exhibitions and publicity, and direction guidance, while those in the strict control zone are mainly used for science and education publicity and emergency relief. Prohibited areas are generally cultural ancient neighbourhoods, ecological

green areas and other areas where commercial advertisements (including commercial advertisements on smart media displays) are prohibited. Some of China's urban public spaces are strictly divided, such as Beijing, in accordance with the urban spatial structure, the public space is divided into prohibited areas, restricted areas and permitted areas. In Shanghai, the city has also divided the display area, control area and prohibited area in the preparation of outdoor intelligent media planning. Wuhan City controls the installation of smart media in the city from the aspects of "planning layout" and "general regulations", and its "planning layout" is specified as permissible installation areas and prohibited installation areas. The purpose of the zoning of the layout of smart media in public space is to reasonably promote the reasonable setup and promotion of smart media carriers, so that the dissemination and effectiveness of smart media carriers and the layout of smart media in public space go in the same direction and maintain a proportional effectiveness.

3.4. Artistic Design of Intelligent Media Platform in Public Space

The rapid development of urban construction, has long established a single or group of public space "model", the spatial layout of the intelligent communication platform, but also just "according to the map to find their way" passive behaviour, in its determination of the final location, there are still environmental designers to design thinking The playground of the environmental designer's design ideas.

3.4.1. The Layout Design of the Smart Media Platform in Open Public Space

Open public space is mainly for the open-air environment. Generally, the outdoor public space is broader and more impressive, but the attachment points of the external platform of intelligent media are fewer. Setting up a communication platform window in such a public space, whether it is a large intelligent display screen or an intelligent computerised carrier platform, has to face the difficult problem of choosing a site and a point of choice. Reasonable thinking should be in the broad view of the square, parks and other places, can consider setting up a single large-scale intelligent display screen, in order to adapt to the viewer's viewing distance is far away, the majority of the public and other factors. Bus stops, street corners, "pocket parks", and even residential community yards, you can choose an independent floor-to-ceiling interactive intelligent displays.

In terms of design, the presence and influence of background objects should be taken into account. Points should be comfortable for the public to view, the angle of science, but also take into account the natural light, the background light factor. In addition, the points should be located in such a way that the public can easily find them and keep a scientific distance from the obstacles.

3.4.2. Closed Public Space Intelligent Media Carrier Location Design

Closed public space refers to indoor space, taking complex buildings, business buildings, railway stations, underground stations, libraries, theatres and other indoor public space environment situations as objects. The layout design is divided into two parts: choosing the broadcasting equipment of the intelligent media platform and how to select the location. For large space, large display players can be chosen; for small and medium space, independent floor-to-ceiling interactive intelligent displays are chosen. The same as the open public space layout design, also need to consider the angle of view and light factors. In addition, for a large public space of the complex or business building, you can consider more spread spread the machine position distribution point, in the building anteroom installation of large display screen player at the same time, but also in the stairwell installation of independent floor-to-ceiling interactive intelligent display.

3.4.3. Intelligent Communication Platform Design and Customisation

Due to the huge number of intelligent communication devices put into use in public space, then in the selection of intelligent communication platform communicator, you can try a "two-step" approach, one is to set up a communication platform communicator appearance design team, according to the city location of the regional landscape, local cultural characteristics of the design of the media communicator appearance of one or more kinds of image, and then handed over to the manufacturer

according to the figure. The first is to set up a team to design the appearance of one or more types of media transmitters according to the regional features of the city. The second is to provide machine samples by the manufacturer, and the target city will select and customise the machine.

3.4.4. Easy to Operate and Understand

The main purpose of setting up an intelligent media platform in urban public space is still in the application. As the proportion of elderly people in the use of the population is large, and there is a considerable number of foreign mobile population, so the use of intelligent communication display must be convenient and easy to understand. In addition, government authorities should provide the public with operating methods and mobilise social forces to organise volunteers to carry out extensive voluntary service activities to rapidly popularise the operating methods of smart communication displays.

4. Improving the Interactivity of Intelligent Media with the Public

In the new era of rapid development of digital technology, the traditional one-way communication can no longer meet the needs of the audience, the audience, especially urban audience groups need more real-time interaction with the intelligent media platform or sharing experience, and hope that the intelligent communication carrier through the rich and varied media products and simplified artificial intelligence technology, for the audience in the public space to set up a collection of searching, sharing, evaluation, feedback, and even dialogue and exchange of intelligent interactive platform, so as to achieve a good all-round communication effect. It is hoped that the intelligent communication carrier will build an intelligent interactive platform integrating search, sharing, evaluation, feedback and even dialogue and communication for the audience in public space through a variety of media products and simplified artificial intelligence technology, so as to achieve all-round good communication effects.

4.1. Intellectual Media Carriers in Public Space Should Focus on Interactivity with Audiences

Strengthen the science and innovation design of the interactive function of the public space smart media platform, and improve the practicality of the common space smart media platform.

4.1.1. Voice Control Function

With the arrival of the big data era, voice-activated functions have long been realised in practical applications, such as voice-activated televisions, voice-activated water dispensers, and higher-level military, police and other machines and instruments are all using voice-activated technology. Just the voice control function is widely used in intelligent communication carriers, need to solve the "accent" problem. At present, most of the intelligent machines and instruments can "listen to the command" language work, most of the "obey" in the Mandarin language system, the regional dialect command does not move. In order to facilitate the masses and more highlight the essence of humanity, should be injected into the design of a variety of language functions, it is recommended to take the "Putonghua> large regional dialects> major ethnic minority languages> large foreign languages" route, so that "a shout" will know the world's major events and small situations become a reality! The dialogue function

4.1.2. Dialogue Function

Dialogue function can increase the interactivity and participation between people and intelligent communication machines, and selectively carry out human-machine dialogues.

4.1.3. Touch Function

Touch function has long been used in intelligent machines, but when people operate it, it is often not sensitive or too sensitive. Therefore, in the new public space intelligent media platform design, can reasonably solve this problem.

4.1.4. Writing Function

Writing function has long been intelligent applications, just how to make this "old craft" rejuvenation, so that it can be more "intelligent" to identify the "intricate" fonts.

4.2. Setting Up Smart Media Carriers to Discriminate, Filter and Block Interactive Content

Due to the public space intelligent media carrier added public participation function, coupled with the participation of the "universal reporter", which for the intelligent media content authenticity, rigour, impartiality and other challenges, in the face of this reality, we must be in the intelligent communication platform "brain" design "special customisation". In the face of this reality, it is necessary to do a good job in the intelligent communication platform "brain" design "special custom", so that the intelligent media carrier in the interaction with the public with accurate discrimination, screening and blocking function, the "real, clean, practical" news products to the general public.

5. Conclusion

Urban public space is an important part of the construction of the smart city, and it is also the artistic "white space" of the urban context. The design and construction of the intelligent communication platform in public space not only "fills" and "strengthens" the urban body, but also "enriches" and "sublimates" the urban spirit. It also "enriches" and "sublimates" the spirit of the city. Through the joint efforts of media people and designers, the operation, setting, design and packaging of the intelligent media platform in urban public space will play a great role in optimising the overall temperament of the city, upgrading the overall quality of the people and promoting the modernisation of urban governance.

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