

On the Morphological Perception and Virtual Experience of Digital Signage in Spatial Orientation Design

LIAN Ting

Shanxi University, Taiyuan, China (030006)

In space-oriented design, the guide logo is often combined with the overall visual style and spatial positioning of the space design through the designer's whims. With the development of digital technology and the application of artificial intelligence, the practice of designers is reflected in the integration of digital information into media content and physical objects. Digital-oriented identity from touch, voice to eye sensing; static and dynamic conversion of multi-dimensional presentation, real to virtual possibilities are expanded, so that people experiencing in space can produce a variety of morphological perception and virtual immersion experience.

Keywords: space-oriented, digital identity, virtual experience

In the era of digital information and artificial intelligence, digital information and artificial intelligence have quietly penetrated the lives of the masses, and designers are required to clearly and clearly use digital information symbols. In modern design, the traditional guide sign in the space plays a leading and guiding functional role, most of which complete the spatial visual style and personalized spatial positioning through changes in material, shape, color, light and shadow. In the present space design, the spatial orientation identity has undergone a fundamental change especially in recent years, VR virtual exhibition space, online virtual space activities, covering culture, entertainment, science and technology and many other fields. The combination of increasing digital technology, artificial intelligence, virtual reality technology and space activities has contributed to the diversified development trend of space-oriented systems. This paper emphasizes the importance of the guiding role of digital signage in space-oriented design and analyses the effect and experience of digital content in space-oriented design from three aspects: touch, voice and eye-sensitive space-guided design.

I. Regulation of Digital Signage

The digital identity mentioned here is not the identity of 1, 2, 3 ... but the combination of graphic design and spatial design technology to embed digital information into media content and spatial physical objects. Digital signage can be understood as a sign set up in the spatial environment for guiding purposes, providing people with spatial information, helping people to understand, understand and use space in the spatial environment. Traditional guidance identification usually consists of recognition symbols, text, graphics, colors, symbols and other visual perception elements to jointly build an information environment to facilitate people's rapid

identification, recognition and direction selection. The digital identification in space is basically copied from the graphic symbol of the real space to the virtual space, which is more used in the guiding design of the display space. Digital signage has fundamental differences in spatial structure layout, display content display, content information output and so on. For example, the role of VR display space-oriented identification is not only to guide the viewer to the exhibition line and process, but more importantly to stimulate the viewer's attention and interest in the display content and even generate interaction. For example, in the VR visit experience in art galleries and museums, the guide logo design in virtual space not only considers the spatial guidance of the virtual world but also the information integrated with the contents of the exhibition.

For space designers, different space-oriented design will bring different space experience and visual impact, especially the touch sensing mode, voice guidance, eye tracking mode, etc. The application of digital signage in modern space design broadens the experience dimension of traditional signage-oriented design. Reasonable digital signage design not only effectively play a guiding role, but also enhance the fun and entertainment of the space; and make the space and people produce effective links. For example, the traffic signs of rural streets in Korea project digital images on the ground at the corner, representing the local culture, digital images, colors, light and shadow are suitable for pedestrians to look down on, naturally integrated into the overall rural environment. At the same time, if the direction is wrong or lost, one side of the road monitoring equipment will have corresponding voice prompts. For example, the guide design of the ladder in the underground passageway in Japan is in the form of a piano key, combined with the sound control effect, so that the whole underground passage space is lively and interesting, and to a certain extent, it can get rid of fatigue. At present, many digital intelligent sensing devices have been added to the space design of most museums and art galleries, and digital guidance devices that make the display space more technologically intelligent through technology. Digital signage combines science and technology in the design of spatial signage, changing the traditional way of viewing museum space, stimulating the public's interest in exhibition, and reaching a high level of connection between people and space.

II. Multi-dimensional Presentation of Digital Signage

From the perspective of imaging, all visual objects that can be seen capture objective and non-objective picture categories, can be called images. Digital identifiers can also be called digital images, in a network environment, everything computer-generated graphic images, are operational things. Currently, the image has transformed into a dialogue word between people and people, between people and machines, between people and space. From flat media to digital media, the way of images has become a common way of perceiving and recognizing things, with digital images entering personal, family, and social life, and related to each person's spiritual and material life. People perceive and understand the world by reading pictures, which is fully reflected in space-oriented design. A digital identity is specified in space as an image with a certain functional meaning. Especially in the post-modern design language, according to Saussure's dualism of symbols, digital artifacts, such as "Bird Zun", are displayed as a vessel in the simple understanding of "Bird Zun", which refers to the breadth and dimensions of epitaxy. It can epitaxially reflect the aesthetic and humanistic values of the time, understand the bronze casting technology, the period and background of the use of the vessels, and the classification of the social hierarchy.

In a digital-oriented identification system, the interpretation of symbols can be deconstructed into three types: direct communication (static), dynamic presentation, and ultimate presentation. Direct interpretation refers to the direct and vague “impression” produced by the seeker when the vague “space impression” is potentially related to the impression of the destination. Compared with direct communication with strong subjective colors, digital-oriented dynamic presentation is much more realistic and objective. It is usually the actual effect of guiding symbols on the experience. The possibility of feeling, which is mainly a non-analytical or even intuitive component, strengthens the experience’s sense of spatial practice. For example, when people interpret the same set of digital guide signs with relaxation and tension, the responses and results are very different. Therefore, different functional spaces should be interpreted as inductive symbols of different properties and should not be treated uniformly or pretentious. Digital signage dynamic presentation has spatial-temporal existence, that is, a set of specific behavioral actions or events, is the experience from passive direction to active participation in selection, and recognition of space.

The ultimate presentation is the ideal goal of image symbol release, the complete impression of the guide symbol system, and the final understanding of the digital guide identification meaning after full recognition and consideration. The ultimate expression is usually formed when the logical relationship of all the guiding symbols is clear and can form a unique style or cultural meaning. Having certain conventions and conventions is the result of the deep role of style and culture, and only has cultural effect when symbolic interpretation becomes a convention or convention. In fact, any space-oriented design provides us with an interpretation of the possibility, and countless concrete interpretations of the integration, theoretically speaking, will tend to an ultimate, rational expression that is, multi-dimensional space-oriented design.

III. Reality-to-virtual Simulation Experience

In recent years, the statistics of the application of intelligent digital in space design show that the application of spatial digital intelligence has a clear growth trend and has gradually been accepted and recognized by the public. VR is one of the most easily stimulating technologies in the design of virtual exhibition spaces, and it is also the most attractive and highlighted technology in the market. Any technology is two-sided, and the restrictions and infeasibility factors existing in the technology are also the key contents that affect the experience effect. At present, every VR device and technology has certain shortcomings, which objectively hinders the application of virtual reality technology in the design of display space. According to the classification basis of virtual museum exhibition space, it can be divided into two categories, one is non-interactive activities, and the content of experience viewing is pre-designed. The second type is human-virtual space and group interaction activities, in which the viewer can rely on headsets, data vests, digital gloves and other devices to interact with the virtual space and its objects. In such activities, the viewer will change the spatial orientation with the interactive content and the object, which can be seen that the virtual space interaction design will affect the spatial orientation design. Due to the difference between the two types of design, price and experience process, most online virtual museum space experiences are basically the first type, and individual virtual exhibition space experience halls will design professional VR immersive experience.

As a social and cultural education institution, modern art galleries and museums provide cultural experience and educational opportunities for the public. VR exhibition space design has expanded the artistic appreciation of

the minority group to popular participatory learning. The exhibition space-oriented logo content provides the experience with a comprehensive interpretation and understanding of the work through the medium. For example, in the VR Museum of Art exhibition hall, audio explanation, background music, stereoscopic display, guide sign, instruction music, illustration guide, etc. are used to hint and guide the experience to actively participate. But experiencing VR exhibitions isn't as easy as watching VR movies or playing VR games. VR exhibitions are more of an experience activity with an action goal or goal. How to guide and interest the exhibition is especially important. In the absence of experience or knowledge, sitting comfortably in a chair watching an exhibition is a "learning" that requires you to move along with the movement of the exhibit while observing the experience and reading the instructions. Although this is a necessary process for viewing the exhibition, at the same time the experience can get a lot of information while watching the VR exhibition, and in the process of obtaining this information will feel tired. Experience VR art museum should be more aesthetic and artistic than other exhibition activities. This artistic experience is invisible and the content of the emotional subconscious. The provision of VR exhibition content information is very important to promote the exchange of art exhibits and spatial experiences between the experience. For VR art museums to play their role in spatial communication, efforts should be made to communicate with the experience, from the digital signage of the space to the output of content information. In other words, the VR Museum should provide the experience with various appropriate media interpretation of the display content and guide the VR experience viewing process through digital identification.

The above analysis shows the importance of digital orientation in space-oriented design, especially virtual exhibition space is different from movies and games, and it is difficult to guide and stimulate the audience's participation in learning content. At present, the reasons for the insufficient experience of the virtual exhibition hall include the following: (1). Through the interviews, people experience VR content game entertainment aspects of the learning content, so the online VR art museum is not high, on average 1500 views in a single exhibition. The reason is that on the one hand, the equipment price is high, on the other hand, the operation is not proficient, the spatial information transmission mode, the viewer's cognition and understanding is not high. (2). because the VR exhibition time is short, the display guidance is not interesting, so you cannot go deeper to experience the work, feel the work, only stay in the technical curiosity. (3). VR display space digital guide logo is not clear, it is easy to make the viewer disgusted, most of the time to walk in a circle will exit. (4). virtual space digital guide logo design is an important element to guide the viewer and bring the viewer into the immersive experience, has a very important role in the virtual space experience.

Conclusion

In the context of the technological revolution, it is not the richer the technological means, but the better the technology should be integrated into a set of digital-oriented content that guides the psychology and behavior of spatial design. Especially in the virtual exhibition space, virtual guides and audio guides can be fully integrated. At the same time, the author or artist's virtual image is added to the creative process of his work and the content of his work to increase the interest of the interpretation of the work. The azimuth logo and image logo can be combined to guide the experience and make it easy to find the work you want to see. Secondly, space design, especially museum space display content combined with digital signage orientation and form, should highlight the uniqueness of the display works and enrich the display mode. Dynamic boot arrows for digital identification

add more accessibility. Third, display space digital orientation logo and real space orientation logo avoid the same kind of, can be creative natural environment scene space orientation, or get rid of the architectural frame space structure orientation. Through the above analysis of digital signage, from the perspective of the experience, I hope that the digital signage in space orientation will be creative, interesting and immersive design. The digital signage design in space-oriented design should be combined with the relationship between people and space environment and information content to guide the design and achieve an effective space experience.

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