Research on the Application of Narrative Design in the Innovative Design of Portable Audio Products

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Abstract. Nowadays, audio products need to satisfy consumers pursuit of both material and spirituality to stand out in the fierce market competition. Narrative design, as a kind of story-telling design method, can inject new vitality into the design of audio products. This article summarized the theoretical knowledge of narrative design, integrated the current situation of audio product design and the changes in the new social pattern, analyzed the narrative elements of audio products from four aspects, and summarized the application of narrative design with a series of typical design cases. In order to adapt to the developing market, audio products must be given more spiritual connotations. Extending the narrative theory to the product design can give more functional value to the product, make the product and its contained culture easier to understand and accept by consumers, and provide a new reference path for the development of audio design.

Keywords: Narrative Design · Audio Product Design

1 Introduction

Since 1999, the average annual growth rate of the output value of audio products in China has exceeded 30%, and the market is still developing steadily. Portable audio products are favored by consumers due to their compact features, and more possibilities can be tapped for their design. In the era of experience economy, consumers are not limited to the functions of the products themselves when they choose the products they need, but they also have spiritual expectations for them. The purpose of this article is to explore how to help people obtain emotional needs and spiritual resonance in the process of using products, so as to create a deeper connection between products and consumers, and form an understanding of product culture from the perspective of narratology. Applying narrative design to products and using narratives to express the taste of products is to give the product a soul so that people can produce spiritual pleasure through the product. This not only shortens the distance between the product and people, but also helps to improve consumers' sense of brand identity [6].
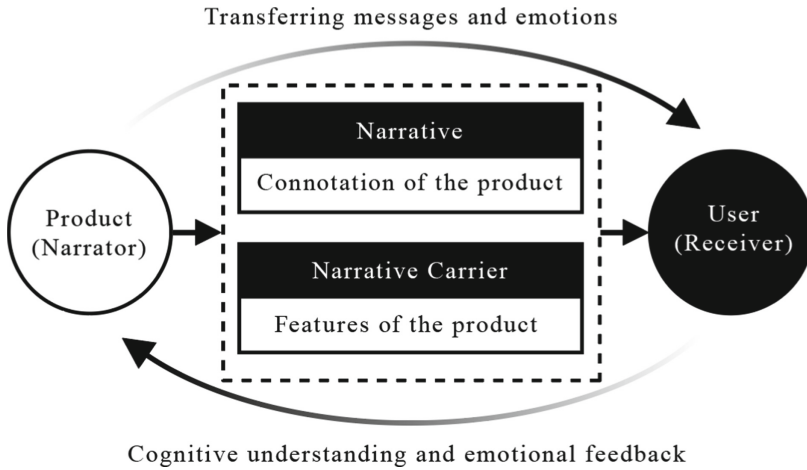
Transferring messages and emotions

Cognitive understanding and emotional feedback

Fig. 1. Narrative design model of audio product.

2 Narrative Design and Portable Audio Products

2.1 Overview of Narrative Design of Audio Products

In the 1960s, narratology was first proposed and was first applied to drama, film, texts and other related fields. Then narratology theory gradually developed and strengthened [5]. In the 1990s, it became related to the field of design, and then had an impact on product design. Narrative Design, which combines people and products through the form of storytelling so as to achieve emotional or cultural experience in addition to satisfying the practical value of the product assists users to receive the expression of the connotation information of the product [8].

The three main elements of narratology are: narrator, receiver and narrative [10]. The narrator is the implementer of the narrative act, the receiver is the target of the narrative act, the narrative is the event itself, and the medium needed in the process of narrative is the carrier. Applying this concept to the design of audio products, the corresponding relationship is: narrator-product, narrative-connotation of the product, receiver-the user, and the narrative carrier-the features, including shape, material, function and use scenario of the product. In Fig. 1, the model maps the relationship of these four to complete the relationship mapping of narratology in audio product design.

2.2 Current Status of Portable Audio Product Design

The audio market in China began to develop in 1979 and has been very mature. Especially in 2017, when smart portable audio developed rapidly, and the demand for audio products has always remained at a high level [9]. In the era of new media, the application of audio products continues to expand. Product functions are more professional, and category segmentation is gradually improved. The popularization of digital products such as smart phones and tablets also drives the growth of audio accessories. The audio-visual

entertainment platform has developed robustly, and users' requirements for sound quality have continued to increase [1].

Portable audio which is popular at the moment is an innovation to the traditional home audio. The compact size makes it possible to carry with, which greatly broadens the scenarios of use. Smart design enables the combination of audio and other smart devices to become an important control terminal in future smart home [2]. The appearance of the audio also shows a diversified development trend. The shape is no longer the square and cumbersome in the inherent impression. Various styles of products have been born to integrate into a variety of home atmospheres.

2.3   The Necessity of Using Narrative Design

In the 21st century, "smart life" has been gradually popularized, bringing unlimited innovation possibilities to various industries, and the leisure and entertainment industry is now an important product [4]. The reason why instant entertainments such as comics and short videos are popular is that when facing the high-pressure and high-speed pace of life, people often relax by using fragmented time. Similarly, in the current era, people expect that audio products can bring not only excellent sound quality, but also a relaxed and pleasant experience.

The formation of the new era pattern also has a certain impact on consumers' product demand concepts, especially when the main consumer groups are gradually becoming younger and abandoning the original traditional concepts. The pursuit of consumption has gradually changed from "quantity" to "quality", from "rationality" to "sensibility". As a result, more and more audio products are designed to focus on stimulating the user's emotion, and use psychological and emotional marketing tactics to spark consumer's desire.

Since 2017, China's audio market has developed rapidly. Competition is unprecedentedly fierce, market structure has changed frequently, audio product functions and usage channels have been gradually subdivided, and product types have become diversified. In addition to attracting consumers by the appearance and function of the audio products, the use of narrative design techniques to give products cultural and emotional value has also become the key to stand out.

3   The Application of Narrative Design in the Design of Portable Audio Products

Home audio products can be divided into many categories according to the use scene including desktop, modular, portable, etc. Since Sony launched the Walkman in 1979, the scene of people listening to music has begun to change [3]. With the rapid development of computer and smart phone technology, portable speakers that are small and light are popular with the majority of people and have truly entered the homes of ordinary people. The narrative elements of audio product design can be divided into: shape and structure, material and craft, function and technology, use experience and scene.
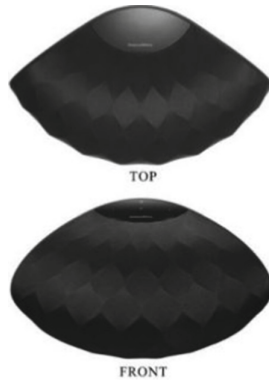
Fig. 2. Formation Wedge by Bowers & Wilkins.

3.1 Shape and Structure

Shape and structure refer to the shape, color and structure of the audio product itself, which are the inherent external attributes of the product and the static carrier of narration. Users do not need to operate and use, but only need to observe to be able to have a certain degree of perception of the narrative of the product. For example, contrary to people's stereotyped perception of traditional sound shapes, Formation Wedge by Bowers & Wilkins in Fig. 2 adopts a wave design wrapped in fabric. The main body of the 120-degree oval design looks exactly like a traditional Chinese lantern from the front. This design aims to achieve sound coverage in the range of 120 degrees, which is very suitable for placing in the corner of the desk, avoiding the waste of room space. Viewing from the top, the shape is like a shell, and the wave pattern resembles an extension of the surface of the shell. The design is ingenious and the shape is smart and elegant.

3.2 Material and Craft

The material refers to the materials used in the design and production of the audio products, and the craft refers to the method and process of processing these materials [7]. They also have static properties, which affect the user's external perception of the product, and support the narrative function of the product. As shown in Fig. 3, the grille of Beoplay A9 4.G by Bang & Olufsen is made of a wool blend material jointly developed with the world-renowned textile design company Kvadrat, which not only has a good audio penetration effect, but also reflects the combination of Nordic traditional crafts and modern audio technology. The metal outer ring made of anodized aluminum and the oak support legs make the sound like a stylish piece of furniture, giving users a unique style of home.

3.3 Function and Technology

Function and technology refer to the functional characteristics and technical characteristics of the audio product, which determine the specific role of the audio product in the

Fig. 3. Beoplay A9 4.G by Bang & Olufsen.

Fig. 4. Apple HomePod mini.

use process. They are the dynamic content expressed by the narrative, and users need to operate and experience by themselves to be able to perceive them. In its repeated use, the user has emotional interaction and the quality of the interactive experience has a crucial impact on the product's experience, which often determines the user's evaluation of the product. Apple HomePod mini shown in Fig. 4 is a speaker with smart functions. The built-in intelligent voice assistant Siri allows users to operate the speaker by voice, and can also help users deal with some daily affairs, which greatly expands the use of the speaker. This speaker also has powerful IoT functions and is one of the control terminals in the future smart home scene.

3.4 Use Experience and Scenarios

Use experience refers to the subjective feelings established by the user in the process of using the audio product. The use scene refers to the specific time, place, purpose and method of the user using the product. It is the environment and stage in the narrative process. Today, as products are becoming more and more homogenous, digging in the usage scenarios of products, giving them interest and arousing users' special emotions can effectively enhance the user experience and help build the narrative context of the product. Different from other traditional audio equipment, the overall appearance of Sony's LSPX-X2 wireless speaker in Fig. 5 is like an old-fashioned glass lamp. It places the LED light source in a long plexiglass tube, and uses a lens to expand the lighting range, strengthen the softness of the light, and combine the functions of audio and lighting. Whether it is placed on the bedside, balcony or dining table, its elegant shape

Fig. 5. Sony LSPX-X2 wireless speaker.

can add elegance to the home environment. It puts people in a comfortable atmosphere where sound and light blend, satisfying consumers' pursuit of unique life aesthetics.

4   Conclusions

In the design of audio products, the application of narrative design can enhance the cultural connotation and spiritual value of the product. From the perspective of narrative, this article analyzed the characteristics of narrative design and the elements of product narrative through actual cases. At present, many products on the market are still in the stage of imitation and plagiarism. If the narrative design method can be further studied and used more in the design of audio products, it will not only broaden the research area of narrative design, but also help provide consumers with more interesting and useful products. At the same time, narrative design can better display and disseminate brand cultural connotations, create new appeal to consumers, provide new channels for consumers to recognize and understand audio product brands, and help enhance brand value.

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