Research on Emoji Design in the Communication Age

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Abstract: Internet emoticons have become an important way to express emotions in online social interaction. When words can't fully express the feelings of communication, social language represented by online emoticons gradually forms a new language model. Emoji, which is widely used in the communication era, is similar to the symbols drawn in letters in the early days, but its carrier is different, and its emergence can not be separated from the development of personal computer technology. The emergence and development of emoticons in the communication era revolves around the development of computer technology. Taking the different user experiences brought by emoji in the communication era as an example, this paper analyzes the development process of emoji and the embodiment of emotional design. This paper attempts to analyze emoji, a popular element in the communication age, from the design point of view, and find relevant theoretical support. I believe these theories can also play a guiding role in other designs.

1. Introduction

With the rapid development of computer and Internet technology, people's communication mode is undergoing a great change. In China, communication based on computer media has gradually become the mainstream. With the progress of science and technology, the popularization of computers and the development of network, the immediacy, remoteness and synchronicity of human communication have been greatly developed. In the expression platforms of various online social media, it is found that the dynamic expression categories used by most users are cute pets, holiday greetings, cute cartoon images and retro greetings for middle-aged and elderly people. Emoji and traditional art complement each other [1]. In fact, emoji is a new art form that integrates images, film language and other new media. It can summarize the facial features of human beings and be modified by designers. By using digital art technology, it can be summarized and exaggerated to create an artistic image with a more prominent sense of form and interaction [2]. Taking the different user experiences brought by emoji in the communication era as an example, this paper analyzes the development process of emoji and the embodiment of emotional design.

2. Network emoji

Internet emoji is a kind of network language, just like people's body movements and expressions in real communication, and it is an auxiliary language used by people in network communication. The objects represented by symbols have also increased from people's expressions and actions to weather phenomena such as rain, snow, wind and frost, natural creatures such as flowers, insects, birds and animals, and daily objects such as tables, chairs and benches, which greatly satisfies people's strong desire to express their feelings. Expression pack is a trend of visualization information in the modern communication era. However, in terms of form, it is quite similar to the image painting used in social communication of primitive human beings. Primitive human beings record their productive labor on rocks or daily necessities in an abstract way, so as to transmit information and record their lives.

Emoji, which is widely used in the communication era, is similar to the symbols drawn in letters in the early days, but its carrier is different, and its emergence can not be separated from the development of personal computer technology. The emergence and development of emoticons in the communication era revolves around the development of computer technology. In addition to

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"instant messaging", online communication forms also include "non-instant messaging" such as E-mail, forums and post bars. Even if the communication between e-mail and forums is delayed, it cannot stop the development of emoji [3-4]. The preset emoticons in the forum are highly synchronized and consistent with the emoticons in the game products. This consistency enables the game users to seamlessly connect their emotions when using emoticons from the game products in the forum, and users will have a sense of intimacy rather than strangeness when using such emoticons.

Internet emoticons have become an important way to express emotions in online social interaction. When words can't fully express the feelings of communication, social language represented by online emoticons gradually forms a new language model. Emoji, as a universal social language in the world, can effectively carry out emotional supplementary expression in online social interaction and convey our information more intuitively. In 2021, Apple updated Emoji in iOS14.5, which made emoji more inclusive (as shown in Figure 1). The update of emoji emoji also entered a fixed rhythm.

Figure 1 Emoji is incorporated into Apple input method system

Nowadays, the most widely spread emoticons are pictures, which can be divided into dynamic emoticons and static emoticons according to their basic characteristics. However, due to the limitation of word documents, dynamic emoticons are difficult to demonstrate in detail, so they are all displayed here with their static images.

3. Modeling design principles of emoticons

3.1. Principle of ideographic norm

The artistic conception expressed by emoji should not be too abstract. If users can't understand the meaning of emoji immediately, it will raise the threshold for users to use the emoji, and the high cost of learning and using will inevitably reduce the enthusiasm of users to continue using the emoji. The purpose of emotion is to make the communication between users more interesting, convenient and efficient. The design of expression should also fully understand the basic needs of users and avoid tedious and meaningless design [5].

On the premise of observing the above principles and laws, we should gradually optimize the expression to improve the user experience. A more perfect expression system should also pay attention to some dialogue details that are not usually noticed. For example, in the real dialogue process, there are often scenes where both sides have nothing to say, which requires corresponding expressions to deal with such embarrassing scenes.

3.2. Emotional principle

With the rapid development of science and technology and social economy and culture, people have a certain material foundation, and the demand for deep emotions is becoming stronger and stronger. Everything we do includes emotional and cognitive components. People's cognition can give meaning to an object, and people's emotions can shape its value. From the overall change form of emoji, the style changes from static to dynamic, and the subject matter is also more and more

extensive [6-7].

Usually, when creating picture emoticons, designers will look for feelings and creativity from the things around them, so the cartoon hand-drawn emoticons we use are mostly anthropomorphic animals, plants or daily necessities. The "chemical reaction" produced by animals, plants and personification is so wonderful. The emoticons of these animals and plants all express a certain emotion and emotion with facial expressions and body movements (Figure 2).

Figure 2 Common cartoon picture expressions

Under the background of the times when the whole people are fighting for pictures, the number of emoticons is increasing day by day. How to stand out from the crowd is very crucial. Giving symbols humanistic emotional elements is to satisfy users' deep spiritual pursuit and desire. Once they are injected with emotion, they will not only have practicality, but also have spiritual characteristics that can communicate with users emotionally [8].

3.3. The combination of diversity and entertainment

It's not uncommon to deconstruct the elements in the existing emoticons and combine them in another way through secondary creation. Under these emotional appeals, people may not care too much about whether the expression of the pictures they send is reasonable, illegal or even harmonious when communicating with emoticons. For those who are using emoticons to spread, as long as this expression can express their mood and feelings at the moment, they will be satisfied (Figure 3).

Figure 3 Cartooning of characters

At the beginning of emoji design, the emoji package was developed and designed by ourselves for the needs of software. Since the design right of emoji began to shift to the public, the factors of public entertainment will definitely be reflected in the emoji design. For example, the synthetic dynamic pictures used now are mostly made into emoji packages from film and television clips or news events, and public figures. According to personal interests, ordinary people can easily produce and release the events they are concerned about by synthesizing dynamic expressions to trigger entertainment effects.

4. Level and application of emotional design of emoticons

4.1. Instinctive hierarchical design

The energy level refers to the innate part, which is an instinctive condition of human beings. The principle of instinctive hierarchical design is regardless of race and culture. Physiological characteristics such as vision, feeling and hearing play a leading role in instinctive level design. The reason why smiling yellow face expression can bring people different emotional understanding is actually inseparable from its appearance. If the design of an emoticon has no emotional resonance, no matter how powerful the vision is, it will eventually be forgotten by the public [9]. However, a work with emotional design often takes time to read, and the intuitive visual experience is the first and key factor to attract users to download.

4.2. Color hierarchy design

Emoji is an effective visual form of information dissemination. According to the knowledge of communication, the dissemination of information is through the following channels. The transmission of emoji information also goes through each of the above steps. That is to say, even if the expression is naturally revealed, the information receiver may have a different understanding of this emoji. In the total amount of information people get in interpersonal communication activities, 65% of the information is conveyed by nonverbal symbols, and only facial expressions can convey 55% of the information. This shows that among body symbols, facial expressions have the strongest communicative ability and the largest amount of information conveyed.

The expression of graphics and colors in emoticons is a process of visualizing or even animating creativity. The colors in emoticons are always fresh and pleasant, which paves the way for people's positive emotions-happiness, and also provides innate conditions for communicators to send emoticons frequently. For example, signs are made of cloth into mild and harmless oval or rounded rectangle. This kind of gentle graphic expression is also reflected in the emoji. No main character of the emoji is sharp and square, and these graphics make people feel afraid and rigorous.

Simple colors are also one of the elements that impress the audience [10]. Colorful colors are easy to give people a strong visual impact, but it is difficult for the audience to re-outline the images they have seen in their minds when they recall. Therefore, color is an important element that constitutes the meaning of artistic symbols. Each color has a different meaning. For example, black gives people a sense of austerity, white symbolizes purity, green symbolizes life and so on. If language is a symbol transmitted by sound, then color is a symbol transmitted by vision.

4.3. Dynamic hierarchical design

Today, with the rapid development of emoji, the emoji we come into contact with are diversified from form to content to style presentation. Among them, there are many emoticons in dynamic form, and most of the emoticons we download and use on WeChat emoticons are in dynamic form, especially with the rapid development of new media technology, which makes dynamic emoticons more and more common in users' field of vision.

After selecting the content you want to express, first make static key frames, and then start actions or changes in five views on the basis of the key frames, so that each frame can be connected to form a complete dynamic emoji. In this competitive and stressful society, I will choose green to color the main shape, and then with black outline lines, the eye-catching effect is excellent. In addition, the external image of green with vigor and vitality is in sharp contrast with natural to stay's character, which will be more conducive to highlighting the spiritual temperament of the characters. Dynamic emoticons are more vivid than static emotions, so the design adopts the form of GIF animation to express the psychological state of cartoon images.

5. Conclusions

Emoji is a new art form that integrates images, movie languages and other new media. It can summarize the facial features of human beings and be modified by designers. By using digital art

technology, it can be summarized and exaggerated to create an artistic image with outstanding sense of form and interaction. Expression pack is a trend of visualization information in the modern communication era. In the context of contemporary aesthetic modernization, as a symbolic discourse, emoji's flatness and metaphor are also typical features of visual graphics. Emoji not only has the function of dispelling, breaking classics and authority, but also enhancing persuasion in social communication; But also can convey people's emotions, express emotions, and enhance the understanding and resonance of visual language.

References

[1] Deng Shiwei, Zhou Jiawei, Chen Feihu. Interesting design of Nuo mask emoticons [J]. Packaging Engineering, 2017, 38(8):5.

[2] He Yangfan, Qin Huiyou, Chang Jingru. Emotional research on social emoticons of APP from the perspective of communication [J]. Packaging Engineering, 2019, 40(20):6.

[3] Liu Yumian. Research on emoji in social networking platforms [J]. News lovers, 2018(7):4.

[4] Chen Yun. music notation in the image-On the visual representation of music notation in the painting art of the Renaissance [J]. Art Watch, 2017(10):10.

[5] Ma Bingnan, Huang Yongfeng, Deng Beixing. Emotion dictionary construction of social networks based on emoticons [J]. Computer Engineering and Design, 2016, 353(05):18-22.

[6] Li Zhengjun, Wang Haoxin. Innovative method of product design symbol extension element [J]. Packaging Engineering, 2016, 37(4):5.

[7] WANG Feng. The application of graphic symbols in modern graphic design [J]. Packaging Engineering, 2017, 038(022):290-292.

[8] Chen Ping, Sun Li. Design and implementation of information camouflage algorithm based on emoji [J]. Journal of Taiyuan University of Technology, 2012, 43(4):4.

[9] Feng Yi, Li Jingshi, Wang Limei. Research on the application of IP emoticons under brand design [J]. Packaging Engineering, 2021, 42(24):6.

[10] Jiang Xiaodong, Zou Jian. Are emoticons redundant? -Research on the Influence of Emoji on the perceived usefulness of online product reviews [J]. journal of industrial engineering and engineering management, 2023, 37(1):12.