

Study and Analysis on the Design Principle and the Emotion Factor Fusion of Humorous Products' Interface Design

Yo Chengming Cao¹ Meirong Shi²

¹Department of Art and Design, Guilin University of Electronic Technology,
Guilin, P.R. China

¹187357348@qq.com.cn ²623706643@qq.com.cn

Abstract

This paper analyses the design principle in humorous products of interface design through the emotion information which was conveyed by the humorous products. This paper is based on the application of the three affective thinking of human, which was Visceral Level, behavioral level and reflective level. How to serve users according to the three affective thinking on the humorous products' interface design is very important. In order to give users an aesthetic enjoyment of the process of using the product, we need to deal with the three affective thinking on the humorous products' interface design. At the same time, the paper also discusses how to combine humorous products' interface design with the emotion which should be conveyed to the users by humorous products.

Key words: Humorous product, Product interface design, Emotion factor, Design principle

Forewords

More and more humorous products have been merged into the present society. This humorous design not only is practical, but also is very suitable for the city people who bear the huge life pressure

and working pressure on the flourishing economic stage. The humorous products design makes people cannot help laughing through some unexpected system and the originality. But no matter in what way, humorous products design allow people to release the pressure on the heart, win the relaxation and pleasure of the heart, and then obtain the positive power by the most simple and effective way.

The humorous products design make some way to attract consumers, which include product function, form, colour texture, tactile, the environment of using products as well as the background and related stories of the product. Those products show some particular temperament, or naive, or humorous, or natural, or elegant, and then create a happy, cheerful aesthetic experience. These implication and humorous are often easy to be accepted by the people.

Interface design is the communication between user and products' information. In addition to satisfying the consumer basic function need, the product must still satisfy the consumer sense of vision, mentally of feeling, the competition object of the product already from the level that "thing" transfer "spirit", start pursue the spirit up of appreciate beauty with the humanized concern. As a product, except for the material level as its existing forms, it is more important that the product

needs provides the using, treatment and management for users by use of digitized information and virtual information.

But for the principle in humorous products of interface design should be based on the feelings to the people in Using Process. It should study on the combining cognition with emotion between people and products, combine the product structure, function, shape, colour, taste and the use of environment with the humorous product of interface design by the design. People will like to experience, and to produce some emotional sustenance in the process of the experience.

Norman's "emotional design" mentions that: " The Department of psychology at Northwestern University's Andrew Drtony and Professor William Revelle on the study of emotion factors shows that the human emotion characteristic caused by the different levels of the brain, Automatic preset layer, called visceral level; which contains the dominant daily behavior of the brain, called behavioral level; The thinking part of the brain, which is called reflective level. Each level in the body's function plays different roles; Each level requires a different design style [1]. " When the human activities are initiated by the Visceral Level, which was initially described as the "bottom-up" behavior. When the human activities are initiated by the reflective level, which was initially described as "Top-down" behavior.

In the two processes, the "bottom-up" is determined by perception. When the users see their favorite humorous products, this favorable impression for a product is transferred to the users' brain by the users' visual and tactile, then go on to the further understanding of the product and contact with the humorous products' interface and functionality. While the top-down process is driven by thinking. When people are in need of such products function, they contact these

products and the interface, and then have a good feeling for the products.

The humorous products of interface design mainly includes the physical interface and virtual interface. How to use these two parts in the three emotional levels of the people? I try to do some research. As shown in figure 1.

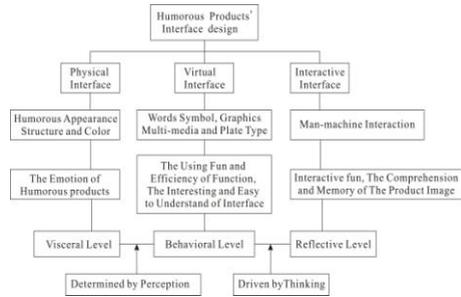


Fig. 1: The relationship of humorous products' interface and users' emotion

1. The Application of the Humorous Products of the Physical Interface Design in the Visceral Level Emotion Design

1.1 The effects of the contour lines of physical interface, the demarcation lines of surface and structure lines in the products design

The contour lines of physical interface, the demarcation lines of surface and structure lines are the important design elements in the physical interface design of the products. In many circumstances, they do not assume the role of information channels. They are more of a visual appearance of the role-playing or the needs of structures. As in the operation interface around, those elements not only influence the visual appearance, but also will affect the operating controllability, accuracy and comfort with a bad treatment.

1.2 The Effects of the Color of Physical Interface and the Lines

For any products, the image can be displayed directly by the color. The seven seconds law of the color fully shows that the importance of the products' color. The color has a decisive function in the humorous products' design. Then it is more important for that the color should be properly used in the humorous products' interface design. The color can not destroy the integrity and aesthetic property of the original product, and must join the interface and the humorous products, and show the controllability of the humorous products' interface.

1.3 The Visibility of the Physical Interface of Humorous Products Transfer Product Function

In the design process of humorous product, designers pay attention to emphasizing the features of novelty, humor, pleasure and using artistic, and tend to ignore the function of humorous products visibility, so the embodiment of humorous products function partially depends on the humorous products physical interface.

In short, the physical interface design should coordinate with the surrounding natural environment, social environment and the product itself features. The environment is the source of the information, and the interface design must convey a range of information to display the placing environment and may induce a variety of relations.

2. The Application of the Humorous Products of the Virtual Interface Design in the Behavioral Level Emotion Design

2.1 The Role of the Words Symbol in Humorous Products' Interface

For a long time, the words symbol has

been taken as the main carrier of information, and mainly embody all levels of the menu in interface and menu options as well as the current state description. The multi font size and the style of letterform directly affect the visual interface, and then influence users. In addition, the selection on the style of letterform must be integrated with the humorous products, and it can not deviate from the humorous products.

2.2 The Role of Graphics in Humorous Products' Interface

Graphics play an important role in humorous products' interface design. American graphic design master Herb on the graphic designer's responsibility pointed out that the graphic designer's duty is using images to project information." Graphics bring new and intuitive manifestations.

For the humorous products' interface design, a kind of vivid and imaginal graphic combined with the products themselves humorous characteristic need to correspond to their functions, which increase the user friendliness and improve the interest of using process.

The screen is an important material carrier for the graphic interface. Except for a small amount of graphics have been distributed in the physical interface, most visual information in the graphic interface is widely distributed on the screen. Due to the humorous products' design is focused on giving users a happy experience, the graphic interface design should not only focus on the practicability of operation, and pay more attention to letting the use of the process to combine with the user's emotion and humor which are the humorous products conveyed to.

The screen information can be investigated by the human visual attention region, thus determine which area required placing information. Through the research on the computer screen Stauffer

showed that when the human observe the computer screen, the vision is not evenly distributed, often on the left top corner is relatively sensitive, and this area is obviously higher than that of other areas, and the lower right corner is not obvious [2].

Due to the differences of the products' shape and size, the interface design should be slightly different for the humorous products' screen. Compared to large products, the interface design basically can follow this rule because of the separation between the products' screen and the control system. But for the small products especially the palm-products, screen graphics interface has a trend to close to the physical interface, which is most close to the choose key area, and most likely to cause the attention of the user. The most important part should be associated with the control parts of the physical interface, the visual distribution should also be combined with the physical interface.

2.3 The multi-media in humorous products' interface

The multi-media including sound, video and animation, mainly used in the Human-computer Interaction System. These techniques should not only convey the emotional connotation of humorous products, and also are able to transmit information to the user.

2.4 The design of Plate Type in humorous products' interface

The Plate Type is the holistic picture composition of layout, is to configure and combine the text, graphics and other visual elements, so that make the operation menu directly, and in order to achieve the best effect of information transmission.

3. The application of the humorous products of the interface design in the reflective level emotion design

The artistry of interactive process in the humorous products' interface design is the high performance of emotion. Interface design is in pursuit of aesthetic, and in order to meet the user's aesthetic and emotional experience, inevitably need high artistic quality. Whether a small icon, a button, or the whole interface plate and even the interface system must match the emotion which is conveyed by the humorous product itself. A good interface design does not allow the user to directly come into the application stage, but a new design idea is borned [3].

The principles of humorous products' interface design require that the designers should consider the artistic of humorous products when they design, so that the design has a high aesthetic and artistic taste. The design not only solve the relations between the interface and users, but also combine the emotion factors with humorous products, and then give users a pleasant enjoyment. Users will reflect on the whole process of using the humorous product. The process is from the humorous products' appearances, using, thinking to feelings. As shown in figure 2.

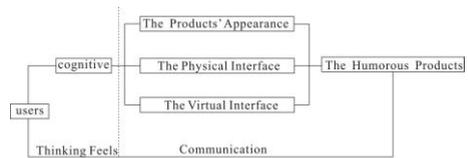


Fig. 2: The humorous products' interface schematic diagram

4. Summary

Humorous design makes products for people's lives into the "sentiment" and "interest", Humorous products interface design need to inherit and develop the "sentiment" and "interest", can not de-

struct the humor of the products. A good interface design can improve the coordination between user and products. This coordination is not only the material aspects, but also include joy, excitement, relaxation, emotion and so on which are produced the process of exchange between users and the humorous products. All of these show the tightness, comprehensiveness, systematization and integrity between the interface design and the products.

Humorous products' interface design should be associated with the emotion factors of the humorous products, so that let users feel humorous products' humanization and personalization from the humorous products interface design. In the design, the designers use the expression icons and other humor graphical elements to convey emotion. The humorous products' interface design needs to combine the personification and entertainment of

graphic image with the product itself characteristic.

Acknowledgements

This work is supported by a grant from the universities scientific research program of Guangxi in 2012. (No.201204LX115).

References

- [1] DONALD A. NORMAN, *Emotional Design* (Publishing House of Electronics Industry, American 2005).
- [2] Jakob Nielsen, *Designing the User Interface Strategies for Effective Human* (Beijing Publishing House of Electronics Industry, China 2004).
- [3] HARA KENYA, *Design of Design* (Shandong People's Publishing House, China 2006)