

From Interaction Design to Design Interactively

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Abstract — This paper gives a clear definition of design interactively and the primary goal of interaction design, which tries to provide a new perspective on the redesign of visual element in an interactive environment. It also studies visual communication design and interactive design by means of comparison method to define the basic concept of interaction, design interactively and intermediately in details. In addition, the paper clearly puts forward the most important task of interaction design which is to pursue design interactively.

Keywords - *Design Interactively, Interaction, Intermediationality*

I. INTRODUCTION

What is the biggest difference among all the interactive designers? That is, some designers are working on interaction design, while others have already worked on design interactively.

What is interaction design? Gillian thinks that interaction design means designing interactive product to support people's daily life and work. That is to say, your body moves before you think. Therefore, careful designers aiming at better availability are able to achieve the anticipated aim with the users' minimum learning and understanding cost.

What is design interactively? That means your heart thinks before your body moves. A careful interactive designer aims at making the users enjoy the operation behavior and forgetting the measures and limitations of intensity, cost, time and various risks, which allows people to lose themselves in an air of pleasure and affinity. From this point of view, industrial designer, visual communication designers and interactive designers all can be interactively designers.

The author used to see a photo of Ive, a designer of many of Apple's products, who was operating the iMac G4 he designed in a crouching position. Ive was as high as a pupil when he crouched, however, with an adjustable arm, Ive could still operate comfortably. Moreover, the arm allowed the display to hold almost an angle which looks like to kiss Ive. If the adjustable design is a common consideration based on ergonomics, then the design considerations of the amazing proportion and beautiful curve are really considerate, which makes iMac G4 become the user's partner. The highlight of the design is face to face between iMac and user, which also creates a kind of dialogue between them. In this way, the Windows 8 interface (Metro) is a way to design interactively. The landmark style of the design offers users a sense of self-driving to enjoy the scenery, and makes mobile devices based on Windows 8 interface resemble a personal guidebook.

In short, interaction design only makes machine be better, while design interactively advances the machine that doesn't look like itself. Is not that the expectation of all

designers? In other words, design interactively meets the demand for emotional design in interaction design better.

II. WHAT IS DESIGN INTERACTIVELY?

Design interactively refers to the interaction in emotion and psychology.

Development of information technology, network technology and human-computer interaction technology, especially the growth of intermediationality, gives interaction design higher priority in the historical development of design. Look back into history, the author holds that the core problem in current interaction design practice is the problem of visual communication design and its solutions in an interactive environment, namely the problem of interaction in visual design, which will help to fill certain gaps in interaction design theory under the trend of pursuing content instead of form.

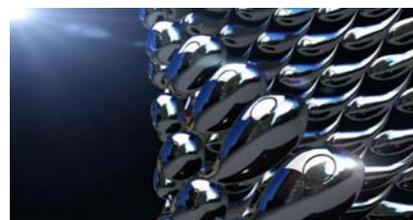




Figure 1. Xiaoqinghe River Sculpture Design, Jinan Designer: Liu Ran

The sculpture showed above is located in Xiaoqinghe River Square, which tries to embody the idea of design interactively. An emotional resonance is created with the audiences through images of water and fish. Xiaoqinghe River is an important inland waterway in Shandong province; it used to be a land of honey and milk with beautiful scenery, clear water and rich fish resources. However, the ecological environment of Xiaoqinghe River was severely damaged in consequence of the dumping of industrial and domestic wastewater over the last two to three decades. Therefore, Reconstruction of Xiaoqinghe River becomes both a key project and an image project. After the reconstruction, the sculpture vividly portrays the prosperous scenes of the river today. Several small fish consist in a big fish, from small to big, which symbolizes the bright future. Although there's no water showing in the sculpture, we can "see" schools of fish swim in the water, which creates an interaction between human being and sculpture. With a quite strong symbolic meaning, the sculpture is in harmony with the environment. When people are admiring the scenery, an emotional interaction with the fish appears.

In terms of interactive products, the business interactive platform in China, along with its design team, has done plenty of work in improving the user experience and enhancing availability, including the import, comparison and application in advanced interface design technology and ideas of interaction design as well as the quest and optimization to accommodate Chinese' aesthetic standards and behavior behavioral characteristics. The above-mentioned work has the common characteristic of regarding interactive environment as a given environment or prerequisite but overlooking a basic fact, that is, the interaction based on technology and visual elements design is different in an interactive environment. To put it another way, the interaction simply depending on the increasing intermediationality does not mean the optimization of the overall interaction process from the perspective of users. On the contrary, the design that pays too much attention to intermediationality not only waste users' attention resource but also may incur a sense of repugnance to users so that the users will filter the information subconsciously and have a tendency towards evasion. The present interaction design practice has already realized the severity of the problem. For instance, Metro interface in Windows 8 aims at giving prominence to the information per se; interaction system like microblog has weakened the operation tips to achieve the function of click is open or close and focuses more on font design against a background of excessive pictures. Nevertheless, the interaction design still lacks a complete

theoretical explanation and systematic method supports. In my view, the basic reason for that is the interaction method preferring form holds a dominant position, which demands the theory of content-oriented and design interactively to change the present situation. Accordingly, the most important task of interaction design is to pursue design interactively.

It follows that interaction has not only technical characteristics but also artistic characteristics. Thus, interaction should be divided into design interactively and intermediately. The former stems from the artistic characteristics of visual elements directed by content-oriented theory while the latter comes from technical characteristics with no connection with the design of visual elements.

II. BASIC CONTENT OF DESIGN INTERACTIVELY

A. *Design interactively and intermediationality of visual elements*

When we look back the whole design history, not the relatively short history of computer interaction design, we can get the conclusion that according to the definition of interaction phenomenology, the plane media as non-interactive media also has interaction, to be more precise, the design interactively with no reliance on computer interaction design. For example, we can complete some visual elements subconsciously under Gestalt effect, or do some operations accordingly under the effect. In contrast, a large number of interactive media elements with technological interaction are evaded, filtered or rejected by users, which become redundant elements with intermediationality at last, just like many flash ads are skipped with avoidance by some mature Internet users when they browse web page. Therefore, on the basis of interaction phenomenology, a still image with emotional motives is more likely to interact with users compared to a clickable interactive icon; an incomplete screenshot is more attractive for the users than a screen filled with overlapping pictures to browse; the collective consciousness and group pressure created by visual elements have better effect of group interaction than excessive messages within certain group. This shows that the design based on design interactively and content-oriented can bring interactive experience filled with immersion, persistence and familiarity in contrast to the design which is simply reliant on intermediationality and form-oriented. At the same time, the former will be most probable to promote the interactive behavior in the user group. Therefore, the most important task of interaction design is to pursue design interactively, namely, pursuing design interactively at the greatest extent to achieve emotional design and user behaviors' design after taking the technical characteristics of intermediationality into consideration.

B. *The deep reason for visual elements' intermediationality and the lack of design interactively.*

On the basis of critical analysis of current interactive design and preliminary investigation, the author thinks that the problem of low cognitive degree of design interactively

is widespread in the field of practice and theory of interaction design. The deep reasons lie in three aspects. First, from the point of interactive design strategy, the tendency to pursuing the visual elements of interactive media technical characteristics is more accessible and economical under the guidance of form-oriented interactive design strategy, which causes the lack of distinctive expressive force and self-independence in visual elements design. Second, from the point of design thinking, the transfer from mature graphic design and visual arts theory to interactive design reasonably, smoothly and naturally is not easy as a consequence of the difference existing in the technical characteristics of plane media and interactive media. Third, from the point of development trend and theoretical environment, the understanding towards the trend of content-oriented interaction design is insufficient and the preparation for the theory of emotional design and availability is inadequate. The content-oriented interaction design theory and practice requiring interdisciplinary research and collaborative effort is pretty complicated. As a result, although the interaction designers have already realized the severity of the problem and got down to exploring related design, just like the design of Windows 8 interface. But there is still no complete theory support for this kind of practice.

III. INTERACTION IN VISUAL COMMUNICATION DESIGN

There is intercommunity between visual communication design and interaction design in essence.

The author holds that studying visual communication design and interaction design jointly because the interaction design history tends to diverge from visual communication design. In terms of the interaction design theory, visual communication design and interaction design have the same service object and face similar design problem.



Figure 2. Card Design of a Foreign Dental Clinic

The design illustrated in Figure 2 reflects design interactively. Unlike other card design, this one conveys all the information by the ingenious dynamic interaction design. The black spot on the card first looks like a cavity of a white tooth, but then it turns out to be part of a black telephone icon when it is pulled towards right, which is the visual center of the whole page. The concise and neat visual design draws users' attention a lot. With the help of this interesting interaction design, the users are surprised to find that the cavity disappears and the tooth becomes white and healthy again when they are crying for the toothache. The design presents the process of filling a tooth, which manages to remove patients' fear from the heart and satisfy the patients' psychological needs. When the product and users take part in the process of conveying information, a static two-dimensional space is changed into a dynamic interactive space that links the product and the user together smoothly.

Carrier of the design is still the static two-dimensional plane media, but the interaction of the design changes it into a dynamic interaction. So the users can participate in the design process and work together to finish the design. That is the interaction existing in visual communication design. The author also stresses that designers should attach greater importance to the content of the design to dig out the interaction hiding in creative design instead of the interaction created by technical change.

IV. CONCLUSION

The development of today's visual communication design is multi-angle and comprehensive under the new media environment, which extends from visual towards emotional and emphasizes user experience. But just as what is mentioned before, interaction design will gain a good deal of enlightenment about emotional design and user experience from visual communication design. In conclusion, some visual communication design theory can be transferred to interaction design theory. The theory of design interactively will help designers re-recognize interaction design and put it into interaction design practice.

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