

Research on the Interaction Design of Information Products Based on the Regional Cultural Context of Chengdu

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ABSTRACT: The purpose of this paper is to explore the interaction design method of information product which fit for the regional characteristics, and cultivate subdivision information products that people really want. The method is based on the effective connection of interaction design hierarchy and the keywords of regional culture, and analysis the regional culture effect in interaction design, and explore the interaction design method that fit for regional characteristics. Then, the conclusion is established a better adaptation and understanding between the interaction design and target user.

KEYWORDS: Regional; Interaction; Slow; Information

1 GENERAL INSTRUCTIONS

Now, the interactive design elements ignore the system cultural differences in the process of user's decision, usually, considering the behavior of individual users is more. And the behavior of users in different regions under consideration is relatively small. Regional cultural differences impact on the user's mind, behavior, perception and other effects, resulting in a different look of information products, has been a question to be answered.

At present, Cultural sociologists on the basis of in-depth study of regional culture found that, a profound cultural influence of the local people's cognitive and behavioral patterns, in the product information, the local people of a performance, cognitive will by culture. But to understand the mechanism of this effect is undoubtedly to have some prerequisites, quantization first is to culture, we refer to Hofstede Schwartz of global scope within the culture of large sample questionnaire survey, will have different denotation and connotation of culture induction for some of the core values "keywords, so that culture has some criteria for predicting and quantifying of Chengdu area of regional culture quantization, then study the mechanism in the product information in the process of interaction process. Based on this, we explore the interaction design of information products based on cultural diversity, diversity, and even the availability of such exploration.

In the interactive process of product information, human behavior, decision making and cultural preference is closely related to even a decisive role to the behavior and to explore the relationship between cultural preferences and the final action, it will be of practical significance for guiding the modern information product interaction design. In regional culture, China and other countries in the world, as well as between different regions in the mainland of China have a greater cultural differences, the study of Chengdu culture on the impact of interactive design has a certain guiding significance. Chengdu, Sichuan, as a city in the southwest of China, has been in a relatively rich, closed environment, the formation of a clear characteristics of regional cultural characteristics, in the nationwide, it is a more obvious cultural label. With this as an example to study the interaction design of information products has profound social significance and practical significance, to explain regional culture in interaction design has certain know the meaning.

2 THE PERFORMANCE OF THE REGIONAL CULTURE OF CHENGDU

The pursuit of leisure life is a way of life for modern people to pursue, but this way of life has become a region of people group from the bones of drift, and the presence of and daily life, work and in Chengdu, other area is the pursuit of, and in Chengdu has

become a culture, become a way of life. This research hopes to interpret Chengdu regional leisure culture on information interactive product design factors. To study the direction we must first be aware of Sichuan Regional leisure culture and characteristics, we according to the principle of Maroth demand, the Sichuan Chengdu geographical culture behavior, spiritual value view layer, the symbol layer, and then use the questionnaire survey method to every level of regional culture on behalf of the keywords to find out. Through the design of the questionnaire and the invitation to the Chengdu area of different age groups to fill in the answer, we summed up the key words of Chengdu regional culture. Behavior layer is slow, the light of; in the level of values is the main leisure; symbol layer is sun bird, panda and so on, in this paper, we mainly discuss the first two levels.

3 THE LEVEL OF INTERACTION DESIGN OF INFORMATION PRODUCTS

Development of a product information, in Jesse James Garrett of the user experience factor, as follows:

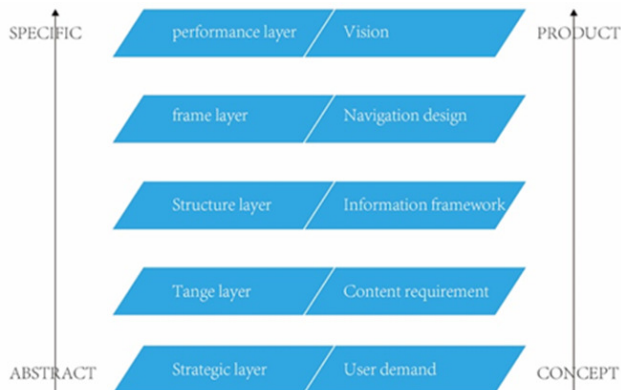


Figure 1. Ingormation product structure.

Developing information products divided into five levels as the target product, demand content, information architecture, information design, visual design. Interactive design is a subject to solve the information architecture planning, generally refers to help users to efficiently complete the tasks envisaged by the product, while in this process, can make the user feel pleasure and not disturbed. This process must be realized through the analysis of the user's mental model, the design of the task process, the use of interactive knowledge, the business logic to the user can understand the way to express to the user, and ultimately achieve the strategic objectives of the product. The following figure shows a good level of product design in detail the interaction framework

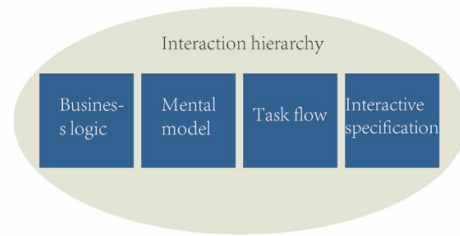


Figure 2. Interaction hierarchy.

Business logic is considered the key point of all problems, refer to the content setting; mental model design for the main set user awareness of the product; and task flow mainly refers to the process of the use of a user or to complete a specific task steps; last interaction specification refers to avoid the operation design, feedback of logical consistency in this framework there is a conflict 3. the relationship between regional culture and interactive design

Chengdu regional cultural key words in the above mentioned above as the behavior layer slow rhythm, light target, leisure etc. Here are some of the key words in the modern information product interaction design process and the existing theory of controversy and basis. Affected by the movement and modern design concept of democracy, since the last century, in the fields of design, designers pay more attention to ordinary users of the pursuit, and even let the general public to participate in the decision-making process of depth design, to ensure the final design to meet the needs of the masses directly, the late 80's, Norman and Della Bo (Norman, Draper) put forward a system of user centered design (User-Centered System Design) theory, pointed out that the user is the core of design activity, the product information should be user centered development, from this perspective, we Chengdu area some cultural keywords slow rhythm, light, quiet and interaction is objective the design meets the demand of the general public consistent idea. But in the interactive design of the guiding principle and Chengdu regional cultural key words are contradictory, such as slow rhythm, light purpose. But Norman (Norman) in 2005 added to user activity as the center concept, in a dynamic way to look at the relationship between people and information products, really understood in an interactive activity an activity may be cut off at any time, at any time and continue to be, then the only watch as the user as compared to the center, slow rhythm, the light is best attention to fit the practical situation in Chengdu fit user activity, this is real for the user designed.

Overall, from the regional culture of Chengdu base up to explore interaction design, and there is no conflict focal point. On the contrary, from the regional culture of various stages of interaction

design, but will let interaction design process more fit in a region of the actual situation, more fit to the user as the center of the directivity, so as to make the interactive ease of use and satisfaction index better. Based on the regional culture of interaction design of information products have a better life. From the user centric point of view to investigate the needs of users, users can get the user's subjective desire, but for the objective needs of the group to grasp the lack of. From regional culture, the paper obtains the cultural key words such as the slow pace of Chengdu region, light, comfortable these keywords can be in a certain extent explore users want is objective, because it is from the user's point of view of culture, is for a regional population and so be able to make the product information model is closer to the target groups the user's mental model.

4 THE APPLICATION OF REGIONAL CULTURAL KEY WORDS IN THE INTERACTIVE DESIGN OF CHENGDU.

4.1 *Slow rhythm*

Chengdu regional culture of slow rhythm, light objective, leisure in interactive design application. Slow rhythm is intended in the tone of slow rhythm, also refers to the slow pace of life or work, uniform rhythm metaphor, regular process. Information products to the slow pace of experience, the need to take into account the effectiveness of the core functions and operational efficiency. In general, information products to reflect the slow and rhythmic characteristics, to be designed at each level of interaction design and mining. First in the business logic layer, the distribution of each content module to be uniform, there are rules, At present, we have the following two kinds of more common flat structure, as follows:

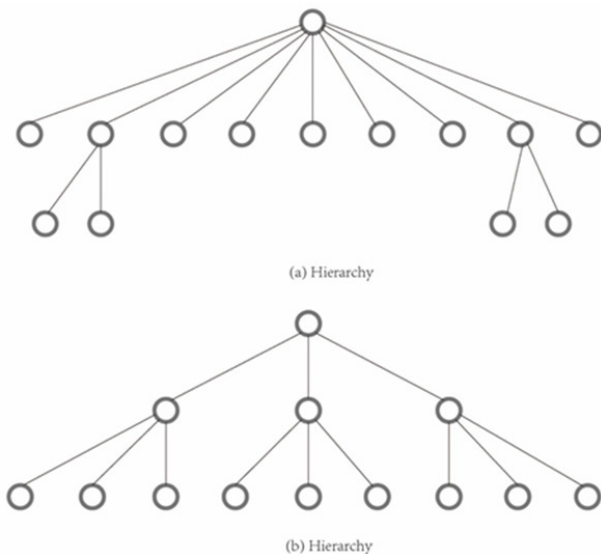


Figure 3. Layered mode.

Pictured above in a more concentrated in the second layer, and figure B content in concentrated in the third layer, figure a although the level is shorter, but in surface information display screen is more complex, figure B level has clear structure, hierarchy is also relatively simple. At the same time, the contents can more ha show, this kind of structure is simple and easy to understand, all levels of the path is clear, less cross and jump can let users natural and rhythmic understanding of the business logic. Secondly in terms of mental models and product information display to the implementation model of the user should be and the user's mental model is similar, in line with established cognitive of similar products or the reality of things, let users can be a smooth transition to the use of the information products, learning cost is low, in the functional recognition knowledge and operation flow aspect is smooth and rhythmic, to immersive user experience. Again in the task process of the product, set is simple, short process node, and can quit at any time and cut into the task, in the understanding of the task, and every task flow is clear, not in which the inclusion of too many other sub tasks, as a whole to center of the task; the interaction specification setting, the specification for the continuation of existing operation habit and product information to form a rigorous and good operation specification system, maintain the unity between the operation and the operation, operation level of switching to take a level of a rational exit and entry, fast path selection set limit.

4.2 *Light purpose*

The purpose of light in the hearts of the people can understand the process, just a part of the experience, and experience are equally important. This view is likely to conflict with some of our existing theories, and generally considers the game to be more focused on the process, functional applications focus on the purpose of. However, the process design should be paid more attention to the process design based on the regional cultural context of Chengdu and the information products for the users of Chengdu region. Then in the interactive design requires us to be in business logic, in the heart model, task flow, interactive specification to be immersed in the process, covering the full, to avoid ignoring the process caused by jumping rough experience. For example, the user login an information product needs account, not only to provide the function of registration and login, but also need to provide "forget account/password" function. Again, for example, a shopping interface, in addition to providing clear classification and search function, to meet the user search commodity, should also be provide interesting function, meet the demand of users to stroll adventures. So the purpose of light can

be understood as the process of attention, the purpose is to spend time in this process. With this purpose keywords light requirements can make the following diagram:



Figure 4. Framework and principles.

Immersion into the content of product information, hope to have a reasonable interaction degree of difficulty, the user have a certain level of efforts to control information of the products, to avoid the anxiety and frustration, at the same time there are some interest to spend some energy. The above business logic set easily but not too simple and straightforward, cognitive psychology need certain thinking is relatively easy to understand, task flow is short but effective and the interactive operation simple but feedback clear.

Always use the Figure caption style tag (10 points size on 11 points line space). Place the caption underneath the figure (see Section 5). Type as follows: 'Figure 1. Caption.' Leave about two lines of space between the figure caption and the text of the paper.

4.3 Leisure culture

Values of the level of leisure is in use in information products obtained the relaxation of a kind of spirit, the understanding for the achievement of an operation and a sense of satisfaction. Chengdu, the region's leisure culture deeply the life of the people, mahjong table, a cup of green tea is an afternoon, then the leisurely in mobile applications are met it? First of all, the business logic is simple, low cost understanding, allows users to quickly understand the structure and content of the information products. Secondly, set up task flow easily, easy to complete, in line with the user's mental model, timely give natural guidance given in the user operation error or encounter difficulties timely feedback, provide help and exit. Finally, in the specification of interactive multi common controls and animation system, enhance information product development and operational efficiency, and thus enhance the overall ease of use, satisfy the user the leisure needs of the operation experience.

5 SUMMARY

From the relationship of the above three groups of keywords and interaction design at all levels, you can see these keywords in the effects of different levels of interaction design has very many internal relations, such as the simplification of the business logic, the arrangement of the content of lightweight; cognitive psychology with the local people living in the habit of cognitive consistency, or only need simple thinking and understanding; task flow tendency and suitable length, and avoid too long to cause anxiety; interaction regulate the use of the user's own knowledge reserve to learn, operation system consistency, direct feedback clear, and users have uninterrupted direct interaction.

Culture with the development of mobile Internet information product, all aspects of interaction design has been the concern of scholars, interaction design and combined with region specific practical use above is becoming more and more vision and future interaction design discipline will tend to diversify, interaction design and various regional combination will rationalization. We must think about how to make interactive design in the broad area of how combine with the actual landing project and the regional population.

FUND PROJECT

(1) Key research base for Humanities and social sciences of Sichuan Province Education Department, Research center of industry design (GY-14YB-20).

(2) The agricultural characteristic brand development and Communication Center of Sichuan.

REFERENCES

- [1] Rao Yulei, Zhang Yuan, Liu Chen. Investigation on the influence of regional cultural differences on individual decision preference [J] Statistics and decision ,2012, 22: 93-98.
- [2] (U) Garet. User experience factor [M]. Beijing: Mechanical Industry Press, 2008.114-116.
- [3] Ye Dongdong, Li Shiguo. The needs and design strategies of Interaction design hierarchy [J]. packaging engineering, 2013, 08 (4): 75-78.
- [4] Liu Kang, Jiang Xiao, Li Shiguo. The Application of feedback mechanism in product interaction design[J]. packaging engineering,2009, 11 (3): 123-129.
- [5] Cooper A, Reimann R, Cronin D. About Face 3: the Essentials of Interaction Design[M]. Beijing: Publishing House of Electronics Industry, 2008.
- [6] (U) Donald Norman, Fu Qiufang, Cheng Jinsan. The emotional design. [M]. Beijing, publishing house of electronics industry, 2005.
- [7] Zhang Jie, Lu Jiahao. The feedback and characteristics of interactive experience [J]. packaging engineering, 2010, 04 (11): 19-22.

- [8] Tullis T, Albert B. Measuring the User Experience[M]. Zhou Rong-gang, Translate. Beijing: China Machine Press, 2009.
- [9] Wu Qiong.The Field and Boundary of Interaction Design[J].2010,01:34-37.
- [10] Ouyang Fenfang, Lu Jie, Liu Yisha. The Research of fragrance, bathroom product design method based on the role of construction machinery design. [J]., 2013, 9 (30): 114-116.Submission of material to the editor