International Journal of Science and Engineering Applications
Volume 12-Issue 01, 46 - 47, 2023, ISSN:- 2319 - 7560
DOI: 10.7753/IJSEA1201.1014

Study on the Availability of Digital Interactive Mode of Scenic Spots Guidance System

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Abstract: Some characteristics and advantages of human-computer interaction interface design based on scenic spot guidance, in order to better apply human-computer interaction interface in product usability, the user model, user interface model, multi-channel interaction information integration, pen-based interaction technology, human-computer interaction software architecture and other contents in human-computer interaction are analyzed. It solves the problem of product homogeneity caused by traditional cognitive interaction and makes the design of interactive products return to focusing on users and interaction itself. The feasibility and rationality of the interactive product design method based on usability theory are verified through design practice, and this method has certain guiding significance.

Keywords: Digital Interactive Mode; Scenic Spots; Guidance System

1. INTRODUCTION

Today, with the rapid progress of computer technology, human-computer interface technology is also constantly improved and developed: early interactive devices such as perforated paper tape, panel switch and display light, to modern interactive devices with multiple perception capabilities such as line of sight tracking, voice recognition and feedback. After the development of the user interface in three stages of batch processing, command line and graphical interface, people have conducted more in-depth and focused research and development on the Post WIMP interface.

At the same time, reduce the use of energy and resources; On the other hand, the current interactive product design is mainly based on cognitive psychology, with serious homogenization, which not only makes the product lose the tangibility, specificity and durability of the original "object", but also increases the pressure on users to learn and remember. This contradiction leads to a very meaningful research topic: how to balance the relationship between interactive products and the digital world, so as to retain the material culture of the product itself. The human-computer interface is the medium and dialogue interface for the transmission and exchange of information between people and computers, an important component of computer systems, and the medium for interaction and information exchange between systems and users, it transforms the internal form of machine information into the form acceptable to human beings.

Interactive products not only have all the features of "classic products", but also have new features: they are not only small in size, but also highly interactive. They have more care and thinking about the interaction with users and the use environment. Different from traditional products, interactive products belonging to the category of large products have three unique elements: shape, function and interaction. First of all, the design requirements should be consistent with the popular trend, reflecting the consistency of design, and adopting the design form popular with the public. Secondly, the requirements of the standards must be consistent with the existing international or national standards to meet the minimum standards of mandatory requirements.

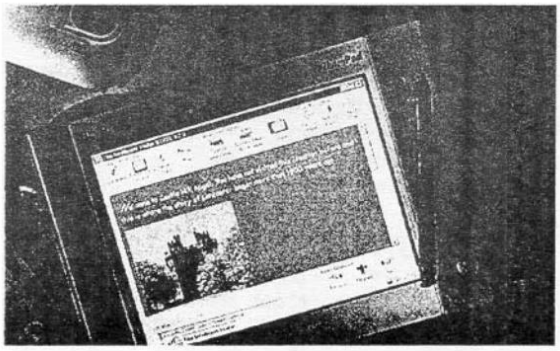

Figure. 1 The GUIDE end-system

2. THE PROPOSED METHODOLOGY

2.1 Concept of Human-Computer Interaction and Human-Computer Interface Based on Scenic Spots

Usability is the "intuitive perception", also known as the "ecological method" theory, proposed by Gibson, a perception theorist and psychologist, from the perspective of human perception experience of objects in the environment. According to this theory, people's observation of things is not only the number and size, but also the combination of observation of many complex levels.

This perceptible possibility is "usability". According to the dialog interaction frequency of the management object, the hierarchical order of the human-computer interface and the display position of the menu in the dialog window are designed to improve the monitoring and access dialog frequency. Regulate according to the user's usage habits and logical thinking, so as to meet the customer's demand for product expectations to the greatest extent.

(1) Generally speaking, people have three abilities: cognitive ability, emotional ability and perceptual motor skills. Correspondingly, the interaction between people and products can be divided into three levels: cognitive, emotional and perceptual interaction.

(2) The interaction type advocated by usability theory is perceptual interaction, and the interaction behavior at this level will jump out of the cognitive limitations. According to the control requirements in the management system, the priority of primary and secondary menus will be designed hierarchically to help managers grasp the priorities of the control system, achieve a good order in control decisions, and prioritize important scheduling and management.

(3) Highlight the important main menu and hide the secondary menu, but also make it easy to find. Thus, the perceptual interaction process between users and interactive products can be described as follows: first, users generate demands in a certain environment, products present their own characteristics, users identify products and their overall functions, and generate interactive interests; Later, users get close to the product, perceive the control interface of the product and try to operate. With the feedback behavior of the product on the operation, the development and trend of human-computer interaction interface must change in form and shape, thus bringing revolutionary changes to life, work and learning.

2.2 Usability Testing of Interactive Products

In general, the development trend of human-computer interface in the future is six modernizations, that is, platform embeddedness, brand nationalization, equipment intelligence, interface fashion, communication networking, and energy conservation and environmental protection. Based on the analysis of the perceptual interaction process between users and interactive products, combined with the basic requirements of the three elements of the shape, function, and interaction of interactive products, the design of interactive products is divided into seven modules, The introduction of the function of interactive interface can greatly ensure that users can use the computer system simply, conveniently, quickly and reliably in the application process, and ensure the security of relevant computer programs and data.

In the product environment user system of interactive products, users are the core of the entire design, so it is necessary to first study the user population in depth. The user research here is no longer limited to the acquisition of external explicit information such as ergonomics related data and living habits, but more to restore users to their environment. Many product design companies attach great importance to the user experience, usage habits, preference analysis and data collection in the design process, but the human-computer interaction interface focuses on the significance of selectivity and functionality of product functions, It is not just the appearance design considered by the designer.

3. CONCLUSION

The birth, development and popularization of human-computer interaction interface is an important development and leap in the history of product design. It will use a large number of media forms such as voice, image, video [10], or other interaction methods to improve the usability and characteristics of products. Here, usability theory is introduced and used to guide the construction of interactive product design methods, fully respecting people's perceptual motor skills and instincts, making the interaction between products and users more natural, and the shape of products more "meaningful".

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