

Human-Computer Interaction in Computer-Aided Industrial Design

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EDITORIAL

The introduction of computer aided industrial design into industrial design has had a great economic impact on people's production and life. Especially for enterprises, computer-aided industrial design has shortened the enterprise's cycle while improving product quality. However, in the information age, effective and timely information distribution is extremely important. Computer aided industrial design and how to achieve human error, timely and effective communication has become the focus and difficulty of analysis. Currently, analysis on computer-assisted industrial design of human-computer interaction is limited to the search for interface design and virtual simulation technology, with little analysis and innovation in theoretical methods. This paper specifically analyzes the design methods driven by user goals and user behavior, and provides detailed procedures and methods for computer-assisted industrial design based on human-computer interaction. At the same time, this paper proposes a method of adding shape design to man-machine performance in computer man-machine shape design, and proposes product shape design based on data information. At the same time, a morphological man-machine design information space is constructed based on this. Experiments have shown that the design method proposed in this article has excellent performance advantages in computer-aided industrial design of human-computer interaction.

Application of human-computer interaction in computer-aided industrial design

The application of human-computer interaction in industrial design is essentially a design method for people and products and their usage behavior. This is not only limited to the product design, features, and processes, but also pays more attention to the user experience produced by the product.

The main application methods of human-computer interaction technology in computer-aided industrial design are user-centered

interaction design methods, which can be divided into user-driven interaction design methods and user-action-driven interaction design methods. User-centered interaction design is based on the user experience. Designers cannot communicate face-to-face with users while using the product. Communication between them can only be done through the product. This method helps designers pinpoint the user's needs at the beginning of the design and ensure that the designed product achieves a particular effect with the guidance of the user's needs.

The important concept of the user pushed interplay layout approach is that it believes that the commercial product layout ought to meet the user's expectations. The maximum vital element is to locate the user's target. The user's aim isn't an easy superposition of features or tasks. The vital situations for customers to acquire their desires are particularly divided into studies section, modeling section, definition requirement section, definition framework section, refinement section and check amendment section. The definition of the necessities section is the center a part of the human-laptop interplay layout approach, which calls for a number of human effort.

User behavior driven interaction design techniques make user behavior the first element of production and do not pay attention to the product in the design process. The focus is on user behavior when people use the product. This design method is suitable for product comparison. The complex phases are divided into the user model definition phase, the user model behavior mode analysis phase, the product prototype creation phase, the prototype usability testing phase, the iteration phase, and the method improvement phase. And the design version phase. This is done by setting up a user model. Analyzing user models and establishing product prototypes can basically solve the interaction behavior problems that occur during user use, which benefits the designer's design efforts.

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