

Object-Mediated User Knowledge Elicitation Method

A Methodology in Understanding User Knowledge

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Abstract

The increasing complexity of the market, technology and economic environments address the issue of effectively capturing and reflecting user needs in product development. The goal of this research is to introduce mechanisms to identify and incorporate users' knowledge that explains the adaptation, customization and modification of products in the process of product use.

"The Object-Mediated User Knowledge Elicitation"- OMUKE is a method being proposed as a way to capture user knowledge that helps design teams develop clear insight into user needs and use context.

This method uses representation of objects as a triggering mechanism for users to externalize their knowledge that would otherwise remain inaccessible. Viewing objects helps users to make unbiased reports of their experiences without influence from existing norms use. First, in this research we conducted pilot studies of the existing? "Convergent Perspective Method"? from which to develop a new method. Second, the effectiveness of using different representations of objects as a trigger was examined in comparison with other user study methods such as ethnographic observations and the use of focus groups. Third, the method has been implemented in the form of software to support both on-site and internet-based remote modes of user studies. This paper looks at the effectiveness of using OMUKE and examines it in relation to other current methods. In the end, we see the effectiveness of this method compared to existing methods. Further developments explore a method of bridging user knowledge with the concept of product architecture to build a lifecycle for innovative product development.

Keywords

User Knowledge and Needs, Design Methodology, User-Centered Design

A Method for Designing Physical Appearance Attributes from the Viewpoint of the Interaction Design

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Abstract

In this paper, we explore a method for analyzing and designing the physical appearance of artifacts from the viewpoint of interaction design.

Interaction design tends to focus on the interaction that takes place via operation panels and user interface software, and many methods have been developed to support the restricted scope of these interaction design activities. However, the physical appearance of hardware can also play a role in the interaction between artifacts and the user in the sequence of the user's activity, and help shape the user's experience.

Based on this idea, we carried out a case study involving copying documents in an investigation of how physical appearances work as interaction elements. Three participants were selected for the experiment, and video observation and on-site interviews were used to capture the user's views and to get the effective physical elements in their activities.

Through these studies, we propose a methodology for analyzing and designing physical attributes from the viewpoint of interaction design.

Keywords

Interaction Design, Appearance Design, Design Methodology