Design as a Knowledge Agent
How design as a knowledge process is embedded into organizations to foster innovation

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Abstract
This study presents how design, as a "knowledge agent" can contribute to innovation processes. It was developed through the analysis of thirty cases in which design was applied as a strategic competence for the development of product and business innovation. In order to examine and compare extremes, the cases were selected from two distinctive contexts with different characteristics in corporate strategies, organizational structure, and "contextual infrastructure". From the analysis of the cases it was possible to identify how design activities adapt to different contexts in accessing different knowledge domains. In fact, this research presents two distinctive ways in which design acts as a knowledge agent: as a "knowledge integrator" in "global corporations"; and as a "knowledge broker" in "local companies". The two identified strategies emphasize the opportunity of envisioning design as a multi functional activity, capable of flexibly adapting to specific contextual factors and contributing to the development of product and business innovation in any given situation.

Keywords
design management, knowledge management, design strategy, design innovation

A Multi-Strata Modeling for Interactive Systems Design and Evaluation

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Abstract
In the evolutionary process of design and technological development of a new category of products, users' expectation for functions, operational procedures, and interaction qualities are diversified depending on existing products used as an archetype for forming users' expectations and reactions to new products. In this research, a multi-strata modeling method is introduced as a unified platform for description, analysis, comparison, prototyping, and evaluation of interactive qualities of products. The interface of typical information appliances is composed of three classes of elements; (a) overall configuration features, (b) graphical interface, and (c) physical interface components. Relationships between the representation strata of these classes are critical factors of forming the quality of interactive user experience. In order to understand the relationships between interaction qualities and the structure of interface, the multi-strata modeling was applied to cellular phone interfaces as examples, and the following relations were examined:
(1) Tasks and Graphical Interface
(2) Tasks, Functions, and Physical Interface Components
(3) Functions and Use Situations
The study reveals the relations between aspects such as graphical interface and functions, physical interface components and functions, and functions and user-expected functions, and differentiates the characteristics of different interaction styles. The result of this research also indicates that the multi-strata modeling could be applied to describe characteristics of functions and the operation structure, the relation between them, finer adaptation to use situations.

Keywords
Methodology, operation structure, interactive system