

## Semantic Descriptive Models for Positioning an Artifact in Use Context: A Case Study with Mobile Phones

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### Abstract

We daily receive huge amount of information about artifacts, interpret and transform some of them into applicable forms of knowledge in our behavior as; using, evaluating, operating, consuming artifacts.

One of the tasks of the human-centered design is to describe the users' knowledge. In the process of designing artifacts, designers have to take account of users' knowledge.

There are two tasks in describing users' knowledge at different levels. First, what the object of knowledge is? For surveying the users' knowledge, we analyzed the verbal expression in the catalogues.

There are some different classes of knowledge on form, function, procedure or sequence of operation, relations to surrounding tool, relation to environment.

Second, what logical, cognitive or semiotic status does knowledge have? In this research we applied the theory of cognitive semantics and its models into the types of users' knowledge; metaphors, kinds of metonymy, prototype scenario and other ideological cognitive models.

### Keywords

design knowledge, design, metaphor, cognitive semantics, semiotics, artifact, mobile phone

## A User-Oriented Perspective on the Design of Living Environment for the Elderly

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### Abstract

Statistics show that Taiwanese as a population are getting older. As the population ages, the elderly will exert a strong influence on the built environment, creating a broad and new market for design services targeted at the needs of the elderly.

This user-oriented study attempts to identify the needs for living environment for the elderly with functional abilities ranging from living independently to dependently. To be congruent with the living patterns of demographic population in Taiwan, one-to-one interviews were conducted with the elderly living in a community, care centers, and short staying in a hospital (admitted to a rehabilitation program).

In total, 153 subjects who were 55 years of age and older, consciously clear and living in northern Taiwan, were interviewed.

The results of the study demonstrate that the need for facilities is associated with the functional abilities of the elderly. A cut point for IADL was therefore suggested, in order to provide a useful indication regarding the swift of living environment whilst the level of dependency changing.

Finally, a study regarding the needs of the elderly on their living environment is recommended in order to provide a comprehensive profile regarding different location in Taiwan as a whole.

### Keywords

Elderly, Care Facility Design, User Needs, Living Environment, User oriented Design, IADL