Ambient Information

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Abstract

Ambient Information is presented in the periphery. Due to subtle changes in form, movement, sound, color, smell, temperature or light the user is kept aware of different states without being burdened by it. This kind of information, which usually consists of few pieces of non-critical information and often is presented in an abstract way, can move from the periphery to the focus of the user. Exemplary ambient systems are Informative Art and the Information Percolator.

Introduction

In the non-digital world, ambient information can be found everywhere. The light, which comes through the window, offers us information about time and weather. The body language gives us hints about the feelings of our fellow men. People walking in the hallway give us auditory feedback about the activity in our surrounding environment. All this information we consume and interpret without focusing our thoughts on them.

This paradigm can be adapted to the digital world e.g. by using peripheral displays or objects to present non-critical information, which the user does not have to attend to but can whenever desired.

Historical Background

Mark Weiser [5] introduced calm technology in thereby proposed the first ambient information system, the

dangling string. From there on all kinds of different systems have been proposed ranging from displays to physical gadgets and even an ambient room [2].

Related Work

A good overview is offered by Pousman and Stasko [3] who present a taxonomy of ambient information systems. They depict four design dimensions: Information capacity (amount of information, which can be provided), notification level (degree of interruption), representation of fidelity (way of displaying the information ranging from direct to very abstract) and aesthetic emphasis (importance of aesthetics).

figure 1. The Information Percolator [1].

One example for ambient information based on physical objects is the Information Precolator. As figure 1 shows it is built of tubes containing water. By releasing air bubbles patterns can be displayed and therefore information can be displayed.

figure 2. Informative Art [4].

In contrast Informative Art proposed by Redström et al. [4] is an example for ambient information based on displays. Similar to a picture frame displays are mounted on the wall (see figure 2) and interactive paintings inspired by artists like Piet Mondrian are used to convey information.

Conclusion

Ambient information is designed to support the user in the periphery of his attention. To do so several systems, from physical objects to displays, have been proposed. Anyhow most of these systems did not manage to be transferred to every day life. Therefore it is important to find out more about user needs and respond to them in a fitting way.

References

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