

# Research Goals and Strategies for Studying User Experience and Emotion

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This poster summarizes results of a full-day workshop at NordiCHI 2008, Lund (Sweden).

The workshop was organized by PhD students both from the Finnish graduate school "User-Centered Information Technology" (UCIT) and the German graduate school "Prospektive Gestaltung von Mensch-Technik-Interaktion" (prometei).

The workshop was structured in three parts: participant presentations, an interactive design exercise, and discussions.

For more information and workshop proceedings visit <http://www.cs.uta.fi/~ux-emotion/>

## Participant presentations



Abbasi, A., Dailey, M.N., Afzulpurkar, N.V., & Uno, T. (2008). *Obtaining self-reports for affective system design.*

Anttonen, J. & Jumisko-Pyykkö, S. (2008). *Understanding the meaning of experiences with technology.*

Chalambalakis, A., Jacucci, G., Liikanen, L., Morrision, A, Tonglet, D., & Roveda, S. (2008). *Investigating Emotions in Visitors Experiences of an Interactive Art Production.*

Kallenbach, J. (2008). *The Experience of Interaction Quality.*

Metag, S., Husung, S., Krömker, H., & Weber, C. (2008). *Studying User Experience in Virtual Environments.*

Minge, M. (2008). *Dynamics of User Experience.*

Suzuki, S.V., Shiraishi, A., & Suzuki, H. (2008). *An Emotional Document Investigation Tool for Academic Writing.*

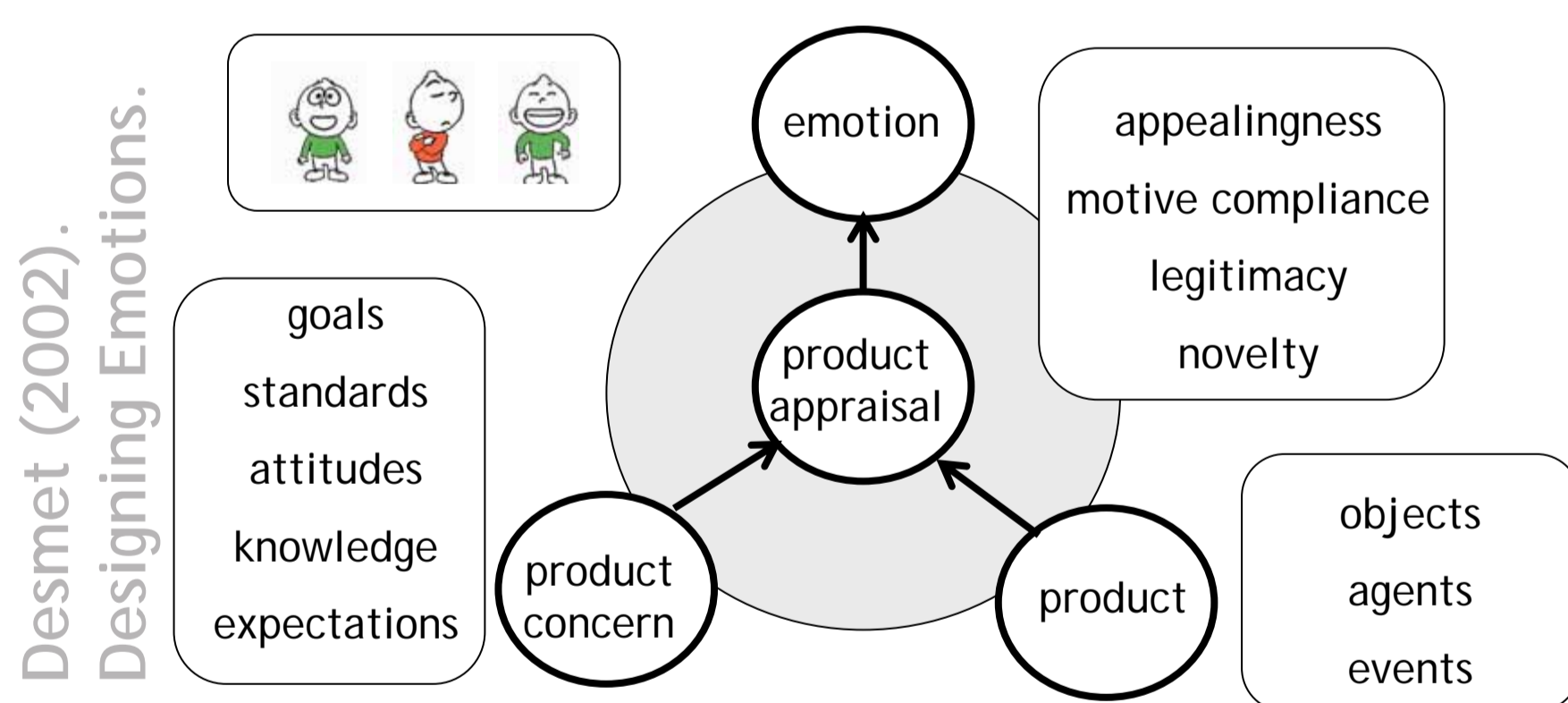
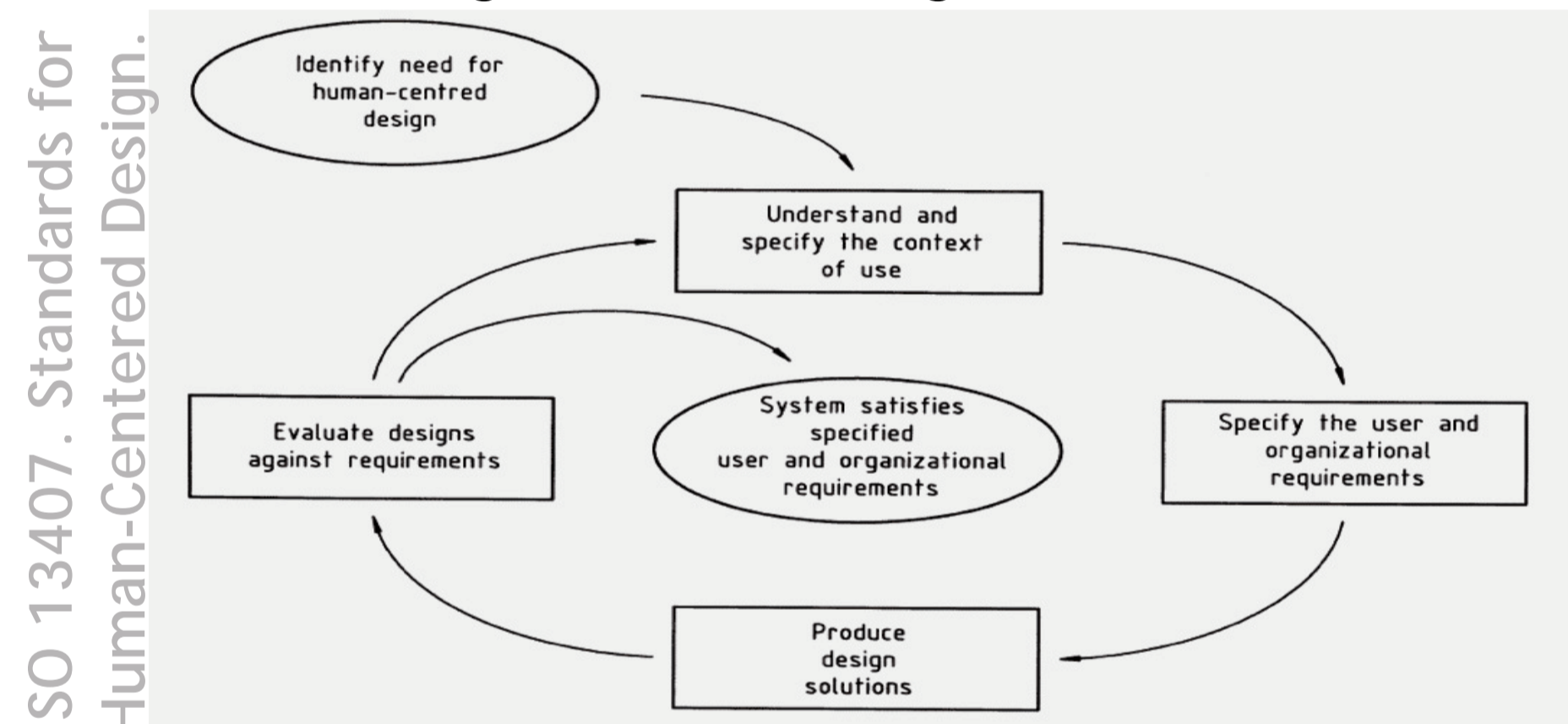
Tychsen, A. (2008). *Crafting User Experience via Game Metrics Analysis.*

Wechsung, I., Naumann, A.B., & Schleicher, R. (2008). *Views on Usability and User Experience: from Theory and Practice.*

Wiklund-Engblom, A. (2008). *Analyzing Emotions in the E-Learning Process.*

## Design exercise

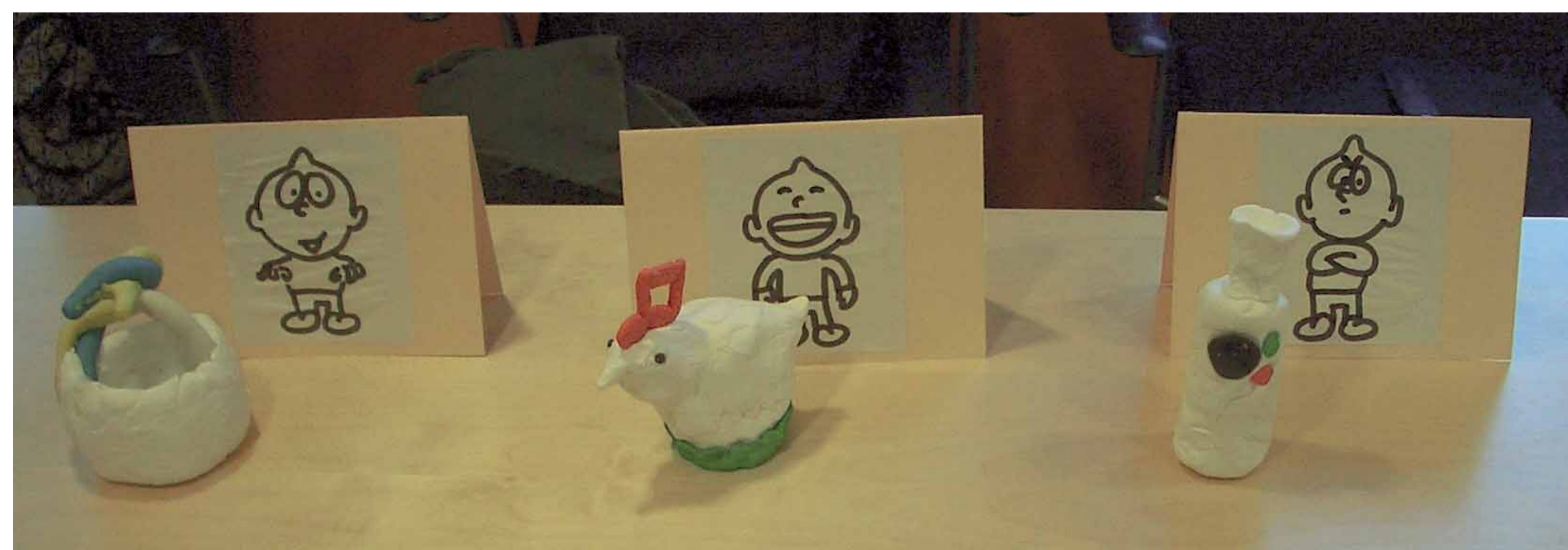
Referring to the standards for human-centered design, ISO 13407, participants were instructed to follow the product development process: concept, design, and evaluation. The task was to develop a bottle-opener, which should elicit a specific emotion. Each group started out with a different emotion: desire, amusement or dissatisfaction. After each stage, groups had to exchange their results, so that another group could continue the work on the proposed solution. Sub-goals were to list requirements (concept), implement those in the design stage, and to develop an evaluation concept. In other words, given the rotating nature of the exercise, the main challenge was to rely on and subsequently provide *informed design*.



:: desire ::

:: amusement ::

:: dissatisfaction ::



„The user catches the bottle into the gripper arm and pulls the bottle up. The crown cap falls into the box, which is illuminated by LEDs in the bottom.“

„The user puts the opener over the bottle and has to sing a song (e.g. a famous Swedish drinking song with a bird as protagonist).“

„The user blows into the bottle-opener, which detects the user's alcohol level. If it is too high, the bottle opener will not work.“

## Group discussion

1

**Design aspects of UX:** The group identified a set of characteristics that they found to be common for success stories such as the Palm Pilot, iPhone or a Ferrari car. The common characteristics included aesthetics, appealing raw performance, ergonomics, possibility for learning & skill, providing peak experiences, reflection & self-image, perfection in the core, offering a few simple benefits, and perhaps involving some mystery.

2

**Methods to study emotions and UX:** The group discussed the benefits and challenges related to quantitative and qualitative approaches in studying UX and emotions. Physiological measures were found to be attractive as they can provide information on spontaneous responses. The key challenge for the future was seen to be to test the validity of physiological measures in relation to UX and emotions.

3

**Predictive modeling of UX and emotions:** The group considered different modeling techniques such as Bayesian networks and Hidden Markov Models in predicting UX and emotions from behavioral and physiological data. The ability to predict user needs was seen as a major goal and the challenge there is not to annoy the users with the predictions. Also, evaluation of UX in different context, such as in 2D vs 3D VR was discussed.



Visit our webpage:

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