Evaluating Affective Interfaces: Innovative Approaches

Katherine Isbister
Rensselaer Polytechnic Institute
110 8th Street, Sage Lab 4208
Troy, NY 12180 U.S.A.
isbisk@rpi.edu
+1 518 276-8262

Kristina Höök
Swedish Institute of Computer Science
Box 1263
S-164 28 Kista Sweden
kia@sics.se
+46 8 633 15 14

Abstract
This paper presents the broad outlines of the context and goals for a one-day workshop concerning the evaluation of affective interfaces.

Categories & Subject Descriptors: H.5.2 [**User Interfaces**]: Evaluation/methodology; Theory and methods; User-centered design—*affective interfaces*; H.1.2 [**User/Machine Systems**]: Software psychology—*affective interactio*n; I.3.6 [**Methodology**]: Interaction techniques—*affective interfaces*.

General Terms: Design, Experimentation, Human Factors, Theory

Keywords: Affective interfaces, evaluation techniques user-centered design.

INTRODUCTION

There is strengthening and continued interest within the CHI community in designing affective engagement with interfaces. Affect is an important part of user engagement with games, interactive narrative, synthetic characters and robots, wearables, voice interfaces, and many other interactive systems. Systems designed to promote community or to enhance safety, two key themes at this year's conference, also benefit from consideration of users' emotional states. Core CHI practitioners have promoted the value of thoughtfully crafting emotional qualities of interfaces (e.g. Don Norman's 2003 CHI keynote; October issue of *Interactions* featuring 'Funology'). Research has advanced our abilities to detect affect in users and incorporate this into system response (e.g. Picard, 2000), and there is a steady trickle of papers presented at CHI and other ACM conferences on affectively engaging systems. As of yet, however, there has not been adequate discussion of how the evaluation of such systems presents unique challenges to researchers and industry practitioners.

How do we measure whether an end user has been affected emotionally in the way we'd like, by a system? Do we look for physiological evidence of emotions? Do we ask for a self-report of emotional state? If the latter, will traditional questionnaire methods elicit accurate responses? Emotional responses could be distorted and disturbed by traditional HCI methods such as 'think aloud', and settings such as the average usability laboratory. CHI community members and practitioners outside the field have been experimenting with tactics for gathering good data about users' emotional reactions toward systems in order to improve design. This workshop will provide a forum for discussing these efforts.

Another key question is how and when we engage users in the design and evaluation cycle, in order to create truly engaging affective interactions. What sorts of prototypes are best for testing an affective interface concept? What kind of user participation produces the best results? New methods and strategies may be called for, as well as the borrowing and modifying of tactics from other fields, such as film, advertising, and consumer product design.

WORKSHOP GOALS

This workshop seeks to bring together those who have been exploring and innovating in the affective interface evaluation domain, in order to:

- Bring together examples of affective interface evaluation strategies already in use.
- Put together a list of current best practices, and collect a body of references from past efforts to evaluate affective reactions to designed systems (both successes and failures), to help us all leverage what is already known.
- Identify key challenges and issues for future work.

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