Emotion in HCI – Designing for People

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ABSTRACT

As computing is changing and becoming increasingly social in nature, the role of emotions in computing has become ever more relevant and commercial. Emotions are central to culture, creativity, and interaction. The topic attracts more and more researchers from a range of multidisciplinary fields including design, gaming, sensor technologies, psychology and sociology. The need for discussion, exchange of ideas, and interdisciplinary collaboration is ever-increasing as the community grows. This workshop will meet requirements of individuals working in the field, giving them a podium to explore different aspects of emotion in HCI, raise questions and network with like-minded people on common subjects. The workshop will focus around working group sessions, and will use predominantly small group work, rather than being presentation-based.

Categories and Subject Descriptors

C.5 Computer System Implementation, D.2 Software Engineering, H1.2 User/Machine Systems, H5.m. Information interfaces and presentation

General Terms

Algorithms, Management, Measurement, Performance, Design, Economics, Reliability, Experimentation, Human Factors, Languages, Theory, Legal Aspects, Verification.

Keywords

Emotions, Affective Computing, Design, Applications, Sensing, Theories, Human-Computer Interaction, Emotion Recognition

1. INTRODUCTION

Emotions influence both human-human and human-computer interactions in most of our daily experiences. They affect our physiology, facial and bodily expressions, decision making, and social interactions, and are what make our interactions human. Rosalind Picard was one of the first to document the importance of emotions in human-computer interactions in her

fundamental publications on affective computing [1][2][3][4]. Since then, research in this field has gained significant momentum as researchers have worked to understand the subtleties of emotion and its effect on our behaviours. The important role of affect and emotion for design and in interaction, be it with humans or technology, is meanwhile recognised and accepted within the HCI community. We witnessed a very active affective computing community at previous workshops, with many new publications and related events addressing affect and emotion in HCI [5][6][7][8][9].

With this workshop, advancement in the field will be promoted by providing a space for interested researchers to explore common ground, share current work and developments, and discuss obstacles faced. A primary challenge for the study of emotion within HCI is the interdisciplinary nature of this research, so we expect the workshop will attract individuals from a wide range of backgrounds. In previous workshops we discussed a range of topics from understanding emotions' function in HCI to the practical implications and consequences of emotion for the HCI community. The workshop at HCI 2008 will serve as a good forum to take discussions on to the next level and to explore new developments.

The previous three BCS workshops on 'emotion in HCI' [10][11] proved to be a good meeting place for like-minded people investigating aspects of emotion in the wide field of HCI. As such, they had a wide basis and participants worked collaboratively on selected topics, with increasingly tangible results [10]. Building on previous successes, this year's workshop aims at bringing the community further together and continuing the consolidation process.

With this year's conference having the theme "Culture, Creativity, Interaction", we would like to encourage contributions which take particular account on cultural aspects in HCI related emotion research, and on effects of affect and emotion on creativity. Hence, the following list of specific and more general topics is non-exclusive:

- How do emotions relate to culture, creativity and interaction?
- How do emotions relate to hot topics in HCI such as engagement, motivation, and well-being?
- Are there reliable and replicable processes to include emotion in HCI design projects?
- Which ethical issues arise and how to address these?
- How do applications currently make use of emotions?
- What makes applications that support affective interactions successful, how do we know, and how can we measure this success?
- What value might affective applications, affective systems, and affective interaction have?

- What technology is currently available for sensing affective states, and how reliable are they?

As with previous workshops, which resulted in a Springer book publication [12], this interactive and focused workshop is designed to produce tangible and citable outcomes.

2. WORKSHOP PROCEDURE

We will solicit submission of position papers (ca. 800 words) related to the subject. Case study papers describing current applications or prototypes are strongly encouraged. In addition to conference specific themes (cultural aspects, creativity), we would also welcome more general contributions and demonstrations.

As a way of bringing the domain to life, presentations of products or prototypes that participants have been involved in are highly encouraged.

The call for papers will be submitted to relevant newsgroups and mailing lists, within relevant European Networks of Excellence such as emotion-research.net, and published on the workshop's website [13]. Papers will be reviewed by the workshop's organising team.

Position papers and short biographies will be circulated amongst all accepted participants before the workshop..

The format of the workshop is designed to encourage interaction between participants. The workshop will be divided into:

1. Brief introductions. Each participants will be invited to talk up to 3 minutes to introduce themselves and their research;
2. Working Groups. Four thematic sessions allowing the participants to work collectively, in small self-chosen groups, on selected themes. The general topics for the sessions will be prepared in advance, with the option to select more specific topics depending on the group members' interests. Working groups are expected to produce tangible results.
3. Create outputs. A concluding part to consolidate findings. We will spend considerable time on this to ensure that tangible outputs are generated.

The focus of the workshop is on discussions and group work on selected themes. After each thematic session participants will join a new group for the next session. This will allow participants to work with many people and on more than one subject over the day, a format that was very well received in last year's workshop. The anticipated outline is as follows:

Introduction: The organisers will introduce themselves and review the goals and format of the workshop. A brief game related to the topic of emotions will act as an ice-breaker. Each participant is invited to talk for about 3 minutes about themselves and their research interests.

Initial group forming: A brief session during which topics of interest and key concepts are reviewed and discussed. The purpose of this short session is to set the foundation for the thematic sessions, identify specific areas of interest and form the first set of working groups.

Working groups 1

Two groups will form to work on one selected topic each. Their group work will comprise

- defining the starting point of discussion (foundations, general assumptions);
- identifying open issues with regard to affect or emotion;
- developing solutions for issues identified;

- working out evaluation criteria;
- summarising their work.

At the end of this session, each group will report on their work and discuss the outcomes of their effort with all participants.

Demos: A 30-minute slot for demonstrations of working prototypes of affective applications, sensors, data analysis tool and other related work.

Working groups 2

Similar to working groups 1 participants will form two groups to work on new subjects. Procedure will be the same as in the first working group session.

Create outputs: By collating and debating the findings of all working groups, we will aim to develop tangible deliverables such as joint publications on issues identified in the workshop, collaboration efforts, networking activities or grant proposals.

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