IC2008 Affective Interaction 7.5 credits

Känslobaserad interaktion

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for IC2008 valid from Spring 2009

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Specific prerequisites

For students not enrolled in a programme at KTH:

Completed upper secondary education included documented proficiency in English, and 180 ECTS credits (hp) from academic studies in Information Technology/Computer Science/Computer and Systems Sciences are required.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

Upon the completion of the course, the student should be able to:
• Design, implement and evaluate systems that address, relate to or influence user emotions
• Explain relevant emotion theories and apply them to the design of affective interactive systems
• Reflect upon and provide a coherent argument on how existing IT-application in affective interactive systems as well as other media, such as arts, cinema, music, address and influence user emotions
• Be aware of and be able to apply practical design knowledge and methods specifically aimed at affective interactive systems
• Reflect on the implications of affective interactive systems on human values, such as privacy, autonomy and equity, as well as on attitudes and behaviours in society
• Scientifically describe a designed affective interactive functionality and relate it to relevant literature and theories in the area

Course contents

The course will start with a set of lectures (some by invited guest lecturers) laying out the foundations in:
· Affect and cognition (Damasio, Cline, OCC-model, etc)
· Neurology
· Affect as expressed by bodily behaviors (Laban), speech (Cowie et al.), facial expressions (Ekman) in humans
· The role of affect in games, narratives, (Persson et al.)
· Affective interactive system examples (Paiva et al, Picard et al., Höök et al., and others)
· Methods for developing affective interactive systems (prototyping with tiny fingers, Wizard of Oz studies, user and function analysis, etc.)
Participants in the course are then required to work with developing project ideas using methods such as:
· how to describe and understand characteristics of the end-user group (e g Cooper, 1999),
· brainstorming, such as Random Words(http://www.randomwordgenerator.com/index.html),
· early idea evaluation, such as Six Thinking Hats (deBono, 1985),
This will result in a project description that should be referring back to the theoretical literature on affect and interaction. This project description will be the examination for the first 2 credits of the course. The course will then mainly be driven by the project work that the students implement in close collaboration with an interdisciplinary teacher team (interaction designers, HMI-experts, and software developers). The project will require lightweight user studies, workshops for interaction design and independent programming/simulation work. The project will be examined from all three perspectives, rendering another 3 credits. Typical methods for these three phases of the project will be:
· user-centred design, such as Contextual Design(Beyer and Holzblatt, 1999) providing real-life (light-weight ethnography) input to the specific scenarios or into specific settings, such as the home (Gaver and Dunne, 1999),
· early (drama and paper-based) development of ideas for user-testing, such as Prototyping with Tiny Fingers (Rettig, 1994) or drama (Iacucci et al., 2002),
· design approaches, such as making use of ambiguity for open interpretation of affective expressions (Gaver et al., 2003)

· fake system testing for end-user interaction, such as the Wizard-of-Oz method (Dahlbäck et al, 1993, Andersson et al., 2002)

Disposition

The course will start with a set of lectures (some by invited guest lecturers).
In the second part of the course, participants are required to work with developing project ideas.

Course literature

The reading material will be a set of chapters from books and research papers.
We also require that students look for research papers in the ACM digital library and other sources to develop their own project idea.

Examination

- TEN1 - Examination, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- LABA - Laboratory Work, 4.5 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

The grading scale for this course is A, B, C, D, E, Fx, F. For a passing grade on the course it is required that all assignments and the exam has a passing grade.Students that are estimated to be close to a passing grade are given the opportunity to complete their examination. This means that the student may be given a passing grade (E), but no higher grade. The course principal informs the eligible students when the exam results are announced. The option to complete is limited in time and can only influence the current examination.The grade of the theoretical part will be weighed together with the grade of the practical part for each student.

Other requirements for final grade

The grade of the theoretical part will be weighed together with the grade of the practical part for each student.

Ethical approach

- All members of a group are responsible for the group's work.

- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.