

AFFECTIVE COMPUTING AND INTELLIGENT E-LEARNING SYSTEMS

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Abstract

The paper deals with the problem of designing and implementing on the computer the representation and use of emotions, from a pragmatic point of view, restricted to the field of Intelligent E-Learning Systems, whose peculiarities are taking into account. It describes the conceptual design of a software platform built on top of NEOCAMPUS2, a software factory for implementing multi-agent Intelligent E-Learning Systems. Within that platform, simple affective life is represented. Following the model of Ortony et al., different emotion types for human users are implemented, and the way agents reason about the emotions they find in users, considering their learning interest. Agents interpret the particular emotional situations of the users and, in consequence, they act to improve in any case user's learning. Preliminary results with students are given concerning the application of those affective agents to MEDIC2, a spin-off system derived from NEOCAMPUS2, for decision making learning. Results are promising in spite of the simplicity of the psychological considerations included in the model.

Keywords

Affective computing, intelligent learning systems, e-learning, research projects, emotion, multi-agent systems