

Call for Papers

Journal of Systems and Software: Special Issue on Affect Awareness in Software Engineering

Manuscript abstracts due **June 15, 2017**

GUEST EDITORS

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Affective computing is the study and development of systems and devices that can recognize, interpret, process, and simulate human affect, i.e. the experience of feelings or emotions. Over the past decade, research has discovered the impact of affective states on work performance and on team collaboration. This also applies in software engineering, in which researchers has begun to study how people's personality, moods, and emotions impact a broad range of activities. For the successful execution of software engineering projects, stakeholders need to experience positive affect (such as trust or appreciation), to agree on display rules for emotions and moods, and to hold mutual commitment to the project goals.

We invite to this special issue high-quality archival contributions on the role of affective computing and affective states in software engineering. This includes empirical studies, theoretical models, and tools for supporting emotion/affect awareness in software engineering, both from academia and industry.

OBJECTIVES AND TOPICS

Affective states play a crucial role in daily work since they have an impact on the performance and outcome of individual and group activities. Personality traits, moods, and emotions contribute to the affective climate of a project or an organization because affective states are constantly felt and communicated through direct or computer-mediated interactions. If we could leverage emotion and affect awareness, we would be able to enhance development and collaboration performance, improve software quality, regulate moods within a project team, and increase fruitful interactions with all stakeholders (including users and customers) involved in the software engineering domain.

The aim of this special issue is to publish high-quality articles addressing challenges posed by affect awareness in software engineering. Topics of interest include, but are not limited to, the following:

- Impact of affective states (emotions, moods, attitudes, personality traits) on individual and group performance, commitment and collaboration in software engineering
- The role of affect in the social programmer ecosystem
- Leveraging stakeholders' affective feedback to improve software, tools, and processes (e.g., capturing and analysis of sentiment of users and community feedback, aspect-based sentiment analysis of product reviews, etc.)
- Design, development, and evaluation of reusable software frameworks, APIs, and patterns for designing and maintaining affect-aware systems

- Affective state detection from multimodal analysis of spontaneous communicative behavior such as natural language processing, analysis of body posture and gesture, speech analysis, conversational analysis during meetings, or use of biometric measurements
- Affect sensing from communication artifact (e.g., message boards, issue tracking, social media), incl. techniques and tools for extracting and summarizing emotions in communication
- Methodologies for large-scale emotion mining
- The interplay between affective expression and exogenous and endogenous workplace factors (such as physical location of the work team, software project roles and phases, the organizational hierarchy, the adopted technologies, etc.)
- Emotion awareness in requirements engineering, software design, and software management
- Emotion awareness in software design philosophies, development practices, and tools
- Emotion awareness in cross-cultural teams in global software development
- Mutual emotion-awareness: affect display rule in the workplace and how emotion displays enhance/impair trust, appreciation, cooperation, outcomes of engineering activities
- Psychology of programming and affective states modeling (e.g., defining/adapting psychological model of affect to software engineering, understanding the trigger behind positive and negative emotions during developers' activities, coarse vs. fine-grained emotion modeling, etc.)
- Ethnographic approaches to affect detection in the workplace of software projects

PRELIMINARY DATES

- Abstract (mandatory): June 15, 2017 – email abstract, title and author list to guest editors.
- Submissions: June 30, 2017
- First decision: October 30, 2017
- Revisions: December 15, 2017
- Final decision: February 28, 2018
- Final manuscripts: April 15, 2018

SUBMISSION INFORMATION

Guidelines for preparing and submitting the manuscript will be available on the Journal of Systems and Software website: <http://www.journals.elsevier.com/journal-of-systems-and-software>

We highly encourage authors to share their datasets and analysis scripts.

DECISIONS

Submissions will be reviewed by at least three experts in the field. The primary evaluation criteria are high quality submissions, innovative aspects in the domain of affect awareness in software engineering, impact in terms of potential for practical applications of the proposed study, and a thorough evaluation. The final decision will be made by the guest editors, in consultation with the journal's Editor-in-Chief and the Special Issues Editor.