

Talk Announcement for the Psychological Research Colloquium, Winter Semester 2026/27

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Generalized, Composite, or Personalized? Re-Evaluating Affect Sensing from Keystroke Dynamics Against Personalized Baselines

Thursday, 7. January 2027, 11:45 – 13:15 (Talk 2), Room 2108/D

Abstract: Computer keyboards are ubiquitous sensors in everyday (working) life and make it possible to collect behavioral data easily, cheaply, unobtrusively, and continuously. Affective computing research has therefore asked whether affective states can be inferred from keystroke dynamics. Many studies report promising classification performance, but they typically train generalized models across persons and compare them against weak baselines. Drawing on the Theory of Constructed Emotion, this talk argues that the link between affect and typing behavior is unlikely to be universal across persons and that the degree of generalization (generalized, composite, or personalized) should be treated as an explicit design decision. In a ten-day field study, 52 participants typed a standardized password and rated their valence and arousal several times a day, yielding 2,377 measurements. Generalized models trained on other persons (leave-one-subject-out) were compared with composite models that additionally learn from the target person's own data, using repeated splits, bootstrap confidence intervals across persons, and a personalized baseline that simply predicts each person's most frequent affect class. The talk shows how much composite models gain over generalized models and whether they outperform personalized baselines. Implications are discussed for the information content of short keystroke samples and for adequate baselines when evaluating affect-sensing models on naturally imbalanced longitudinal data.

All colleagues, doctoral researchers and students are cordially invited.

Optionally, digital participation is also possible at:

<https://uni-augsburg.zoom.us/j/98037502123?pwd=N0NPyMVLNmhKRDICSXISbGZiclhaZz09>