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Completed Research Paper

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Abstract

In Information Systems (IS) research, emotions are predominantly measured using self-reports of survey participants (e.g. in IS adoption) or facial expressions (e.g. in Human-Computer Interaction). In order to combine both measurement foci, we assess and compare the impact of facial emotional reactions to computer-induced stimuli on self-reported perceptive evaluations towards the respective stimulus and system by using a multi-method experimental approach with multi-channel analysis. We captured implicit emotional expressions of happiness of 176 participants using eye-tracker and webcam technology as implicit emotion measures together with a post-experimental questionnaire containing items for the explicit emotion of pleasure, social presence, and arousal. Results analyzed using the FACS procedure (Ekman and Friesen 1978) and test for mean inequality indicate that facially transmitted happiness in response to hedonic design elements in online job ads leads to an increase in self-report measures for pleasure, but not unambiguously for social presence and arousal. Furthermore, we find support for the effect of implicit emotion expression of happiness on the explicit self-report measures of pleasure and arousal being higher for the measures of pleasure. We contribute to IS research on human behavior by complementing self-reported measures of emotion with a physical emotional measure in response to system's feature, and by linking these measured emotional physical responses to individual behavior. In addition, by comparing both implicit (physical) and explicit (overt self-reported perceptions) measures of emotional responses we provide a more detailed picture on benefits and limitations of both measures and about their internal relationship.

Keywords: emotion, facial expression, eye-tracking, explicit emotion measures, implicit emotion measures