Socio-Affective Technologies

Workshop (Sat 2019)

Nadja Bernardina De Carolis, Francesca D'Errico and

Veronica Rossano

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Nadja Bernardina De Carolis
Department of Computer Science, University of Bari
berardina.decarolis@uniba.it

Francesca D'Errico
Fil.Co.Spe Department, Roma Tre University
francesca.derrico@uniroma3.it

Veronica Rossano
Department of Computer Science, University of Bari
veronica.rossano@uniba.it

Preface

The main purpose of the present workshop is to advance emotion and social behavior recognition in order to understand their psychological features but also implement multimodal interaction with applications. The idea is to set the state of the scientific research on socio-affective technologies by integrating both the computational and psychological approaches in understanding, recognizing and shaping affective processes in the real and new social environments (social media, virtual reality) even in educational contexts. The two main focuses of the workshop will rely on linguistic, visual and multimodal aspects of the mediated communication and we include papers coming from psychology, computer science and computational linguistics, but also collaborative works, both from a theoretical and methodological point of view. Thanks to the psychological and computer science lenses our workshop has faced two main sessions: 1) Understanding Socio-Affective Technologies' dynamics and 2) Technologies for detecting Socio-Affective processes in real contexts. The first session has been focused on the understanding of socio-psychological processes and behaviors like humor, emotions, aggression and helping put in action within both social media and virtual reality. The works of Papapicco and Mininni, together with Boccia Altieri and La Rocca, have stressed the importance of integrating quantitative and qualitative methods, by advantaging themselves from reciprocal points of strength. The automatic processing of 'big data' from one side can be refined by 'human' interpretation theoretically based, as in the case of online 'humor. Paciello, D'Errico and Saleri showed online rhetorical strategies of moral disengagement in case of sexist aggression by stressing how also people animated by prosocial intentions can be express hostile emotions and comments. The mediated context of virtual reality can also contribute to the understanding of intergroup helping behaviors by integrating real time emotions detection. The study presented by D'Errico, Martinez, D'Anna, Schmidt, Mastrobattista and Parlongo pointed out how in intergroup helping behaviors people are distracted and not engaged mainly in usual situation (black people in high state of need and white people in low state of need), thus the engagement extracted by means of EEG can be a measure of coping unexpected social situations. The second session, devoted to Technologies for detecting Socio-Affective processes in real contexts, has presented innovative solution of emotions detection by means of touch on smartphones (Balducci, De Carolis, Impedovo and Pirlo), by means of structured measures reflected in EEG, electrodermal activity and heart rate (Brouwer, Stuldreher and Thammasan) and from spectrogram using Convolutional Neural Networks (Franzoni, Milani and Biondi). A particular attention during this second session was given to the clinical contexts. Gaspari and Donnici presented a design of a novel cognitive rehabilitation exercise for

the rehabilitation of executive functions to integrate into the MS-Rehabilitation system thus aiming at increasing by means of a technological device the patients' life quality. Finally, De Carolis, Palestra and Pino presented a refined Emotions detection from Facial Expressions of Individuals with Mild Cognitive Impairment who interact with NAO Robot.

We would like to take this opportunity to sincerely thank the authors for their inspiring contributions to the workshops. We sincerely thank the program committee members for reviewing the papers and thereby assuring the high quality of the workshop program. We are also very grateful to the organisers of the SMC 2019 conference and in particular to the Chairs for their support in the workshop organisation. Finally, we would like to thank dott. Manuel Martinez for the technical support given during the publication phase.

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Berardina Nadja De Carolis
Francesca D'Errico
Veronica Rossano

Organizing Committee

Berardina Nadja De Carolis, Department of Computer Science, University of Bari
Francesca D'Errico, Fil.Co.Spe Department, Roma Tre University
Veronica Rossano, Department of Computer Science, University of Bari

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