Preface to the special issue of best papers from ICEC 2016

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Editorial
Preface to the Special Issue of Best Papers from ICEC 2016

This special issue contains revised and extended versions of papers accepted at the 15th International Conference on Entertainment Computing (ICEC) held in Vienna, Austria in September 2016.

ICEC is the longest lasting scientific conference series in the area of entertainment computing. It is a single-track conference organized yearly by the Technical Committee 14 of the International Federation for Information Processing (IFIP) to bring together practitioners, researchers, and artists to present their latest scientific results spanning from theory to applications, use cases, and experiments to advance the field of entertainment computing.

Out of 16 full papers accepted for the conference we preselected 10 submissions and invited the authors to submit enhanced versions to this special issue of Entertainment Computing. After a double-blind reviewing process we selected three submissions for inclusion. These papers are testament to the broad range of research conducted in entertainment computing today and the broad range of topics covered by ICEC.

In Where the eyes meet: Lessons learned from shared gaze-based interactions in cooperative and competitive online games, Bernhard Maurer, Michael Lankes, and Manfred Tscheligi discuss the effects of shared gaze visualizations on non-verbal communication and perceived social presence in online gameplay. More specifically, the authors report on how different combinations of verbal communication and gaze visualizations influence social behavior among players and collaborative strategies as well as how shared gaze in competitive play influences social presence. Based on these studies the authors present lessons learned on how to include shared gaze visualizations in multiplayer games which should prove valuable for designers and researchers alike.

VirtualGym: A kinect-based system for seniors exercising at home co-authored by Victor Fernandez-Cervantes, Noam Kand, Neubauer, Benjamin Hunter, Eleni Stroulil, and Lili Liu discusses an exergame for older adults where a coach avatar guides them through exercise routines in order to stay active and healthy. Based on the performed movements – captured by a KinectTM – the game provides feedback about posture and movement to the elderly. In light of the experiences gained during the iterative design of this exergame the authors describe a set of practical guidelines which should be useful and relevant for the design of exergames for older adults.

The third paper entitled Pervasive virtuality in digital entertainment applications and its quality requirements by Luís Valente, Bruno Feijó, Alexandre Ribeiro, and Esteban Clua introduces the concept of pervasive virtuality, i.e., a mixed reality environment extended with physical elements which serve as proxy objects between the user and a given virtual object. To this end, the authors propose an extension to the reality-virtuality continuum by Milgram and Colquhoun and describe pervasive virtuality characteristics to help guide the design of such virtual environments. A brief case study demonstrates how these characteristics can be put to practical use.

Common to all these papers is their focus on novel interaction techniques and their proposal of practical design guidelines which we believe will help to create new entertainment experiences and formats. We hope that readers will enjoy this selection of papers and would like to thank all authors for their contribution to this special issue.

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