Contents

Virtual Stealth Assessment: A New Methodological Approach for Assessing Psychological Needs ........................................... 1
   Irene Alice Chicchi Giglioli, Elena Parra, Georgina Cardenas-Lopez,
   Giuseppe Riva, and Mariano Alcañiz Raya

VR Serious Game Design Based on Embodied Cognition Theory .......... 12
   Jose L. Soler, Manuel Contero, and Mariano Alcañiz

VROARRR, Audio Based VR Weapon Design ................................. 22
   G.S. Penninck, N.S. Butler, M. Beardwood, D. Nash, T. Whaley,
   and M. Woods

Go with the Dual Flow: Evaluating the Psychophysiological Adaptive Fitness Game Environment “Plunder Planet” ......................... 32
   Anna Lisa Martin-Niedecken and Ulrich Götz

Smart Mobility, the Role of Mobile Games .................................. 44
   Diego Pajarito and Michael Gould

An Extensible System and Its Design Constraints for Location-Based Serious Games with Augmented Reality ........................................ 60
   Ulrike Spierling and Antonia Kampa

Full Lifecycle Architecture for Serious Games: Integrating Game Learning Analytics and a Game Authoring Tool ............................. 73
   Cristina Alonso-Fernandez, Dan C. Rotaru, Manuel Freire,
   Ivan Martinez-Ortiz, and Baltasar Fernandez-Manjon

InterPlayces: Results of an Intergenerational Games Study ............... 85
   Michael Lankes, Jürgen Hagler, Fabiola Gattringer,
   and Barbara Stiglbauer

PathoGenius: A Serious Game for Medical Courses .......................... 98
   Mohammad Ashry, Slim Abdennadher, Nabila Hamdi,
   and Ahmed Aboelazm

Galaxy Shop: Projection-Based Numeracy Game for Teenagers with Down Syndrome ......................................................... 109
   Jailan Salah, Slim Abdennadher, and Shery Atef
A Novel Serious Game for Trust-Related Data Collection in Supply Chains ................................. 121
Marco Niemann, Frederik Elischberger, Pia Diedam, Jorge Hopkins, Rewat Thapa, Diego de Siqueira Braga, Bernd Hellingrath, Anthony Lins, Rennan Cavalcante Raffaele, and Fernando Buarque de L. Neto

Generating Consensus: A Framework for Fictional Inquiry in Participatory City Gaming. ........................................ 126
Hamish Beattie, Daniel K. Brown, and Morten Gjerde

A Platformer Serious Game with Dynamic Learning Contents ............... 138
Mohammad Assaf

I-Interact: A Virtual Reality Serious Game for Eye Contact Improvement for Children with Social Impairment ........................................ 146
Maha Elgarf, Slim Abdennadher, and Menna Elshahawy

A Case Study into the Use of Virtual Reality and Gamification in Ophthalmology Training ........................................ 158
Andrew Sean Wilson, Jake O’Connor, Lewis Taylor, and David Carruthers

Players’ Performance in Cross Generational Game Playing. .................... 170
Mahmoud Awad and Cathy Craig

The Med Life - A Medical MMORPG ........................................ 183
Mohd Faizi Kazmi, Mohsin Ali Khan, and Zaw Ali Khan

Recommendations to Leverage Game-Based Learning to Attract Young Talent to Manufacturing Education ................................. 187
Gregor Cerinšek, Manuel Oliveira, Heiko Duin, Jannicke Baalsrud Hauge, Maria Margoudi, Stefano Perini, and Marco Taisch

An Evaluation of Extrapolation and Filtering Techniques in Head Tracking for Virtual Environments to Reduce Cybersickness ......................... 203
Augusto Garcia-Agundez, Aiko Westmeier, Polona Caserman, Robert Konrad, and Stefan Göbel

Geodata Classification for Automatic Content Creation in Location-Based Games ........................................ 212
Thomas Tregel, Lukas Raymann, Stefan Göbel, and Ralf Steinmetz

Reflection Continuum Model for Supporting Reflection and Game-Based Learning at the Workplace ........................................ 224
Sobah Abbas Petersen and Manuel Oliveira
Experimental Serious Games: Short Form Narrative in Augmented Reality Dioramas
Tim Marsh, Daniel Galbraith, and Nathan Jensen

Games for Mental and Moral Development of Youth:
A Review of Empirical Studies
Yunshu Jin, Minhua Ma, Dong Hua, and Sarah Coward

None in Three: The Design and Development of a Low-Cost Violence Prevention Game for the Caribbean Region
David Smith, Minhua Ma, Adele Jones, and Ertu Unver

Sliced Serious Games: Conceptual Approach Towards Environment-Friendly Mobility Behavior
Stefan Göbel, Isabel Maschik, Jan Schröder, Denis Krcmar, Fabian Bauer, Nicolas Vogt, Jannis Weil, Hendrik Würz, Maja Nöll, Tim Dutz, and Ralf Steinmetz

Conceptual Approach Towards Recursive Hardware Abstraction Layers
Robert Konrad, Polona Caserman, Stefan Göbel, and Ralf Steinmetz

Bridging Educational and Working Environments Through Pervasive Approaches
Jannicke Madeleine Baalsrud Hauge, Alexander Engström, Ioana Andreea Stefan, and Johanna Strömgren

Putting Serious Games in Context: The Energy Efficiency of Buildings Case
Francesco Molinari and Antonio Zonta

Creating Location-Based Augmented-Reality Games for Cultural Heritage
Mads Haahr

“Skipping the Baby Steps”: The Importance of Teaching Practical Programming Before Programming Theory
Iveta Stripeikaitė

Author Index
Serious Games
Third Joint International Conference, JCSG 2017,
Valencia, Spain, November 23-24, 2017, Proceedings
Alcañiz, M.; Göbel, S.; Ma, M.; Fradinho Oliveira, M.;
Baalsrud Hauge, J.; Marsh, T. (Eds.)
2017, XI, 332 p. 129 illus., Softcover
ISBN: 978-3-319-70110-3