Preface

This new book is a continuous effort in promoting simulations and serious games with a focus on educational application. The major part of this book is selected from the work presented at the 2014 Asia–Europe Symposium on Simulation and Serious Gaming held in Windesheim University of Applied Sciences, The Netherlands (Oct 1–2, 2014). All chapters in this book went through a peer-review process.

Three major domains of education using simulation and serious games are covered in the book including (1) Science, Technology, Engineering, and Mathematics (STEM) Education; (2) Humanity and Social Science Education; and (3) Special Needs Education.

For STEM Education, Wouter van Joolingen discusses science education in Chapter “A Germ for Young European Scientists: Drawing-Based Modelling”; Panpan Cai et al. address vocational training in Chapter “Simulation-Enabled Vocational Training for Heavy Crane Operations”; Hester Stubbé et al. present game based mathematic education in Chapter “Formative Evaluation of a Mathematics Game for Out-of-School Children in Sudan”; Diana Zwart et al. share vocational math teachers training in Chapter “Empowering Vocational Math Teachers by Using Digital Learning Material (DLM) with Workplace Assignments”.

For Humanity and Social Science Education, Jaap van der Molen et al. present their game based learning in Chapter “The Odyssey Game”; and Wim Trooster et al. share game based English pronunciation learning in Chapter “The Effectiveness of the Game LINGO Online: A Serious Game for English Pronunciation”.

For Special Needs Education, Yiyu Cai et al. discuss their research project in Chapter “The Virtual Pink Dolphins Project: An International Effort for Children with ASD in Special Needs Education”; Lennard Chua et al. share their emotional learning project in Chapter “ICT-Enabled Emotional Learning for Special Needs Education”. Zengguo Ge and Li Fan present their social development project in Chapter “Social Development for Children with Autism Using Kinect Gesture Games: A Case Study in Suzhou Industrial Park Renai School”; and Yeli Feng and
Yiyu Cai describe a project for children with autism spectrum disorders in Chapter “A Gaze Tracking System for Children with Autism Spectrum Disorders”.

Researchers and developers in simulation and serious games for educational uses will benefit from this book. Training professionals and educators can also benefit from this book to learn the possible application of simulation and serious games in various areas.

Singapore
Zwolle, The Netherlands

Yiyu Cai
Sui Lin Goei
Wim Trooster
Simulation and Serious Games for Education
Cai, Y.; Goei, S.L.; Trooster, W. (Eds.)
2017, X, 145 p. 65 illus., 53 illus. in color., Hardcover
ISBN: 978-981-10-0860-3