

Contents

A Model-Driven Framework for Educational Game Design	1
<i>Bill Roungas and Fabiano Dalpiaz</i>	
Steps to Design a Household Energy Game	12
<i>Jan Dirk Fijnheer and Herre van Oostendorp</i>	
D-CITE - A Serious Game to Analyze Complex Decision-Making in Air Traffic Management	23
<i>Maria Freese and Sebastian Drees</i>	
What Serious Game Studios Want from ICT Research: Identifying Developers' Needs	32
<i>Grigorij Ljubin Saveski, Wim Westera, Li Yuan, Paul Hollins, Baltasar Fernández Manjón, Pablo Moreno Ger, and Krassen Stefanov</i>	
The Double-Effect Approach to Serious Games in Higher Education: Students Designing and Developing Serious Games for Other Students	42
<i>Peter Mayr, Harald Bendl, and Frauke Mörike</i>	
Instructions and Feedback in Connection with the Duration and the Level of Difficulty of a Serious Game	51
<i>Alfredo Imbellone, Giada Marinensi, and Carlo Maria Medaglia</i>	
Learning and Designing with Serious Games: Crowdsourcing for Procurement	61
<i>Edward Oates</i>	
Development of Mobile Serious Game for Self-assessment as Base for a Game-Editor for Teachers	71
<i>Andreas Herrler, Simon Grubert, Marko Kajzer, Sadie Behrens, and Ralf Klamma</i>	
Path of Trust: A Prosocial Co-op Game for Building up Trustworthiness and Teamwork	80
<i>Konstantinos C. Apostolakis, Kyriaki Kaza, Athanasios Psaltis, Kiriakos Stefanidis, Spyridon Thermos, Kosmas Dimitropoulos, Evaggelia Dimaraki, and Petros Daras</i>	
Digital Game Design as a Complex Learning Activity for Developing the 4Cs Skills: Communication, Collaboration, Creativity and Critical Thinking . . .	90
<i>Margarida Romero</i>	

Social Practices for Social Driven Conversations in Serious Games	100
<i>Agnese Augello, Manuel Gentile, and Frank Dignum</i>	
A Comparison of Methodological Frameworks for Digital Learning Game Design	111
<i>Alysson Diniz dos Santos and Piero Fraternali</i>	
Immersive Technologies and Natural Interaction to Improve Serious Games Engagement	121
<i>Raffaello Brondi, Giovanni Avveduto, Marcello Carrozzino, Franco Tecchia, Leila Alem, and Massimo Bergamasco</i>	
Voluntary Play in Serious Games	131
<i>Esther Kuindersma, Jelke van der Pal, Jaap van den Herik, and Aske Plaat</i>	
Game and Learning Mechanics Under the Perspective of Self-determination Theory for Supporting Motivation in Digital Game Based Learning.	141
<i>Jean-Nicolas Proulx and Margarida Romero</i>	
Mobile Game Based Learning Based on Adaptive Curricula and Location Change	151
<i>Erik Frank, Richard Lackes, and Markus Siepermann</i>	
A Design Framework for Experiential History Games	161
<i>Nicholas Lytle and Mark Floryan</i>	
Teaching Statistics and Risk Management with Card Games.	171
<i>Markus Siepermann</i>	
Simulation-Based Serious Games for Science Education in Elementary and Middle Schools.	181
<i>Seungho Baek, Ji-Young Park, and JungHyun Han</i>	
English Vocabulary Learning System Based on Repetitive Learning and Rate-Matching Rule	189
<i>Jinsuk Yang, Kyongsu Oh, and Kiho Youm</i>	
An Information Theoretic Approach for Measuring Data Discovery and Utilization During Analytical and Decision-Making Processes.	196
<i>Matthew Daggett, Kyle O'Brien, and Michael Hurley</i>	
Collecting Human Habit Datasets for Smart Spaces Through Gamification and Crowdsourcing	208
<i>Giovanni Cucari, Francesco Leotta, Massimo Mecella, and Stavros Vassos</i>	

Comparing Game Input Modalities: A Study for the Evaluation of Player Experience by Measuring Self Reported Emotional States and Learning Outcomes. 218
Stavroula Bampatzia, Angeliki Antoniou, and George Lepouras

Supporting Collaborative Serious Game Studies Online 228
Francesco Bellotti, Riccardo Berta, Alessandro De Gloria, Michela Ott, Maria Magdalena Popescu, and Jannicke Baalsrud-Hauge

Interesting, but not Necessarily Effective: Testing a Serious Game with Socially Disadvantaged Children 238
Christoph Klimmt and Semhar Ogbazion

Involving Cognitively Disabled Young People in Focused Mini SGs Design: A Case Study 245
Francesco Curatelli, Chiara Martinengo, Elisa Lavagnino, and Antonie Wiedemann

Read, Play and Learn: An Interactive E-book for Children with Autism. 255
Vedad Hulusic and Nirvana Pistoljevic

MindSpace: Treating Anxiety Disorders in Children with a CBT Game 266
Barbara Göbl, Helmut Hlavacs, Jessica Hofer, Isabelle Müller, Hélen Müllner, Claudia Schubert, Halina Spallek, Charlotte Rybka, and Manuel Sprung

Development and Testing of a Serious Game for the Elderly (Title: ‘Paldokangsan3’). 276
KyungSik Kim, YoonJung Lee, and DooNam Oh

Assistance for Older Adults in Serious Game Using an Interactive System. 286
Minh Khue Phan Tran, François Bremond, and Philippe Robert

Padua Rehabilitation Tool: A Pilot Study on Patients with Dementia. 292
Stefano Cardullo, Pes Maria Valeria, Tognon Ilaria, Pesenti Ambra, Luciano Gamberini, and Daniela Mapelli

Biomechanical Analysis of Rehabilitation Exercises Performed During Serious Games Exercises 302
Bruno Bonnechère, Bart Jansen, Lubos Omelina, Victor Sholukha, and Serge Van Sint Jan

Gamification of a Truck-Driving Simulator for the Care of People Suffering from Post-Traumatic Stress Disorder 312
Corentin Haidon, Adrien Ecrepont, Benoit Girard, and Bob-Antoine J. Menelas

Challenges for Serious Game Design: Designing the Game-Based Neurocognitive Research Software “Hotel Plastisse”	323
<i>Ulrich Götz, Mela Kocher, René Bauer, Cornelius Müller, and Bruno Meilick</i>	
Virtual Patients for Knowledge Sharing and Clinical Practice Training: A Gamified Approach	329
<i>Federico Cabitza, Daniela Fogli, and Angela Locoro</i>	
Gamified Platform for Physical and Cognitive Rehabilitation	336
<i>Carina S. González, Pedro Toledo, Alberto Mora, and Yeray Barrios</i>	
No Man Is a Monkey Island: Individual Characteristics Associated with Gamers’ Preferences for Single or Multiplayer Games	342
<i>Stefano Triberti, Daniela Villani, and Giuseppe Riva</i>	
N.O.T.E.: Note Over The Edge.	348
<i>Alessandro Riccadonna, Davide Gadia, Dario Maggiorini, and Laura Anna Ripamonti</i>	
<i>Smash!</i> Sport Participation and Commitment by Game Design	354
<i>Harald Warmelink, Sean Vink, and Richard van Tol</i>	
Engagement Mechanisms for Social Machines	361
<i>Flávio S. Correa da Silva, Luiz Carlos Vieira, and Stefania Bandini</i>	
Transportation Services Game: A Practical Tool to Teach Outsourcing Concepts on Logistics	368
<i>Alvaro Gehlen de Leao</i>	
The Absolute and Social Comparative Analysis of Driver Performance on a Simulated Road Network	375
<i>Gautam R. Dange, Pratheep K. Paranthaman, Marco Samaritani, Oussama Smiai, Francesco Bellotti, Riccardo Berta, Alessandro De Gloria, Mario Marchesoni, Stefano Massucco, and Jens Pontow</i>	
A Smart Mobility Serious Game Concept and Business Development Study . . .	385
<i>Francesco Bellotti, Riccardo Berta, Alessandro De Gloria, Gautam Dange, Pratheep Kumar Paranthaman, Francesco Curatelli, Chiara Martinengo, Giulio Barabino, Giuseppe Sciutto, Elias Demirtzis, and Florian Hausler</i>	
ProtoWorld –A Simulation Based Gaming Environment to Model and Plan Urban Mobility.	393
<i>Jannicke Baalsrud Hauge, Miguel Ramos Carretero, Jerome Kodjabachian, Sebastiaan Meijer, Jayanth Raghothama, and Bertrand Duqueroie</i>	

The Role of Surprise in Game-Based Learning for Mathematics 401
*Pieter Wouters, Herre van Oostendorp, Judith ter Vrugte,
 Sylke vanderCruyssen, Ton de Jong, and Jan Elen*

iPlayAStory: A Language Learning Platform for Interactive Story-Telling . . . 411
Abdelrahman Sakr, Injy Hamed, and Slim Abdennadher

Co-design of a Game to Support Increased Manufacturing Insight and
 Interest Among Teenagers and Young Adults 421
Poul Kyvsgaard Hansen, Manuel Oliveira, and Joao Costa

Stop the Mob! Pre-service Teachers Designing a Serious Game to
 Challenge Bullying 431
Christopher S. Walsh and Alexander Schmoelz

Design and Implementation of the Jomini Engine: Towards a Historical
 Massively Multiplayer Online Role-Playing Game. 441
David Bond, Hans-Wolfgang Loidl, and Sandy Louchart

Towards the Blending of Digital and Physical Learning Contexts with a
 Gamified and Pervasive Approach. 452
*Sylvester Arnab, Gemma Tombs, Michael Duncan, Mike Smith,
 and Kam Star*

Get It Right! Introducing a Framework for Integrating Validation in
 Applied Game Design 461
*Harald Warmelink, Marilla Valente, Richard van Tol,
 and Robbertjan Schravenhoff*

Design of “TRASH TREASURE”, a Characters-Based Serious Game for
 Environmental Education 471
Young-suk Lee and Sang-nam Kim

A Gamified News Application for Mobile Devices: An Approach that
 Turns Digital News Readers into Players of a Social Network 480
Catherine Sotirakou and Constantinos Mourlas

A Comparison of Film and Computer Generated Imagery Medium for the
 Learning of Chimpanzee Behaviours 494
Simon Champion, Paul Rees, and David Roberts

The Effect of Simulations and Games on Learning Objectives in Tertiary
 Education: A Systematic Review. 506
*Stephanie de Smale, Tom Overmans, Johan Jeuring,
 and Liesbeth van de Grint*

EEG Assessment of Surprise Effects in Serious Games	517
<i>Konstantinos Georgiadis, Herre van Oostendorp, and Jelke van der Pal</i>	
FRAGGLE: A FRamework for AGile Gamification of Learning Experiences	530
<i>Alberto Mora, Panagiotis Zaharias, Carina González, and Joan Arnedo-Moreno</i>	
Realizing an Applied Gaming Ecosystem: Towards Supporting Service-Based Innovation Knowledge Management and Transfer.	540
<i>Jana Becker, Giel van Lankveld, Christina Steiner, and Matthias Hemmje</i>	
Towards Modding and Reengineering Digital Games for Education.	550
<i>Ioana Andreea Stanescu, Jannicke Baalsrud Hauge, Antoniu Stefan, and Theodore Lim</i>	
Approaches to Gaming the Future: Planning a Foresight Game on Circular Economy.	560
<i>Mikko Dufva, Outi Kettunen, Anna Aminoff, Maria Antikainen, Henna Sundqvist-Andberg, and Timo Tuomisto</i>	
Author Index	573



<http://www.springer.com/978-3-319-40215-4>

Games and Learning Alliance

4th International Conference, GALA 2015, Rome, Italy,

December 9-11, 2015, Revised Selected Papers

De Gloria, A.; Veltkamp, R. (Eds.)

2016, XVI, 575 p. 181 illus., Softcover

ISBN: 978-3-319-40215-4