Gamification: Concepts, Methodologies, Tools, and Applications (4 Vols.)

Editor: Information Resources Management Association (USA)

Description:
Serious games provide a unique opportunity to engage students more fully than traditional teaching approaches. Understanding the best way to utilize games and play in an educational setting is imperative for effectual learning in the twenty-first century.

Gamification: Concepts, Methodologies, Tools, and Applications investigates the use of games in education, both inside and outside of the classroom, and how this field once thought to be detrimental to student learning can be used to augment more formal models.

Readers:
This four-volume reference work is a premier source for educators, administrators, software designers, and all stakeholders in all levels of education.

ISBN: 9781466682009  Release Date: March, 2015  Copyright: 2015  Pages: 2,211

Topics Covered:
- Assessment Integration
- Creative Interfaces
- Digital Games Development
- Gamification
- Learning through Play
- Serious Games
- Social Networking
- Video Games
- Virtual Worlds

Hardcover + Free E-Access: $2,415.00  E-Access Only: $2,300.00  1 Year Online Subscription: $1,125.00  2 Year Online Subscription: $1,900.00
Section 1 - Fundamental Concepts and Theories

Chapter 1
The Gamification Experience: UXD with a Gamification Background
Cathie Marache-Francesco, Université de Lorraine & SAP, France
Eric Brugnier, Université de Lorraine, France

Chapter 2
Lessons from the STEM Sector
Vachon M. Pugh, Electronic Arts, USA

Chapter 3
A Qualitative Investigation of Gamification: Motivational Factors in Online Gamified Services and Applications
Amon Rapp, University of Torino, Italy

Chapter 4
Video Game Framing
Annika Rockenberger, University of Oslo, Norway

Chapter 5
Neurofeedback and Serious Games
Manuel Niana, University of Graz, Austria
Mathias Witte, University of Graz, Austria
Silvia E. Kober, University of Graz, Austria
Elisabeth V. C. Friedrich, University of Graz, Austria
Jürgen Kurmann, University of Graz, Austria
Erwin Hartsuiker, Mind Media BV, The Netherlands
Christa Neuper, University of Graz, Austria & Graz University of Technology, Austria
Güherne Wood, University of Graz, Austria

Chapter 6
Dream Locality: Yume Nikki and Learning the Empathy Dreamscape
Concerta Bommarito, University of Central Florida, USA
Kathryn Dunlap, University of Central Florida, USA

Chapter 7
The Protagonist and Their Avatar: Learner Characteristics in a Culture of Simulation
Michael P. McCreery, University of Nevada, USA
S. Kathleen Krach, Florida State University, USA
Michael P. McCreery, University of Nevada, USA

Chapter 8
Creativity in Education: Play and Exploratory Learning
Beth Ferholz, Brooklyn College, City University of New York, USA
Monica Nilsson, Jönköping University, Sweden
Anders Jansson, Jönköping University, Sweden & Stockholm University, Sweden
Karin Alnervik, Jönköping University, Sweden

Chapter 9
A Match Made in “Outer Heaven:” The Digital Age Vis-à-Vis the Bomb in Games of the Patriots
Jong Geone, University of Texas at El Paso, USA

Chapter 10
Training, Teaching, and Learning
Chiotis Kouroupetroglou, ALTEC Software, Greece

Chapter 11
Digital Literacy Concepts and Definitions: Implications for Educational Assessment and Practice
Patricia Boscobel, University of Alberta, Canada
Karen Dragon, University of Alberta, Canada
Ewa Wastcniewski, University of Alberta, Canada

Chapter 12
The Effects of Avatar-Based Customization on Player Identification
Sebn Turka, Columbia University, USA
Charles K. Kerzner, Columbia University, USA

Chapter 13
Capturing the Semantics of Simulation Learning with Linked Data
Irene Celino, Politecnico di Milano, Italy
Daniele Dell’Aglio, Politecnico di Milano, Italy

Chapter 14
A Qualitative Analysis of Online Gaming: Social Interaction, Community, and Game Design
Zaher Hussain, University of Derby, UK
Mark D. Griffiths, Nottingham Trent University, UK

Chapter 15
Serious Gaming at School: Reflections on Students’ Performance, Engagement and Motivation
Rosa Maria Bottoni, Istituto Tecnologie Didattiche (ITD) - Consiglio Nazionale delle Ricerche (CNR), Italy
Michela Ort, Istituto Tecnologie Didattiche (ITD) - Consiglio Nazionale delle Ricerche (CNR), Italy
Mauro Tavella, Istituto Tecnologie Didattiche (ITD) - Consiglio Nazionale delle Ricerche (CNR), Italy

Chapter 16
Playful Interfaces for Scientific Image Data: A Case for Storytelling
Amalia Kallergi, Leiden University, The Netherlands
Fons J. Verbeek, Leiden University, The Netherlands

Chapter 17
EexLearning®: Movement, Fitness, Technology, and Learning
Judy Shaiek, EexLearning

Chapter 18
GGL as PBL: Guidelines for Game-Based Learning in the Classroom and Informal Science Centers
Brad Hoge, University of Houston – Downtown, USA

Section 2 - Development and Design Methodologies

Chapter 19
Cognitive Load and Empathy in Serious Games: A Conceptual Framework
Wen-Hao David Huang, University of Illinois – Urbana-Champaign, USA
Sharon Tettegah, University of Illinois – Urbana-Champaign, USA

Chapter 20
A Serious Games Framework for Health Rehabilitation
Paula Alexandra Rego, Polytechnic Institute of Viana do Castelo, Portugal & Laboratory of Artificial Intelligence and Computer Science, Portugal
Pedro Miguel Moreira, Polytechnic Institute of Viana do Castelo, Portugal & Laboratory of Artificial Intelligence and Computer Science, Portugal
Luís Paulo Reis, University of Minho, Portugal & Laboratory of Artificial Intelligence and Computer Science, Portugal

Chapter 21
Study Design and Data Gathering Guide for Serious Games’ Evaluation
Jannicke Baalsrud Haug, University of Trondheim, Norway
Johannes C. K. Riedel, NTNU, Norway
Rob Nadolski, Open University of The Netherlands, The Netherlands
Igor Mayer, Delft University of Technology, The Netherlands

Chapter 22
Balancing Fun and Learning in a Serious Game Design
Christopher Franawa, Rowan University, USA
Ying Tang, Rowan University, USA
Aaron Johnson, Rowan University, USA

Chapter 23
Effects of the Digital Game Development Approach on Elementary School Students’ Learning Motivation, Problem Solving, and Learning Achievement
Hui-Chun Chu, Soochow University, Taiwan
Chun-Ming Hung, Tainan Municipal Haidong Elementary School, Taiwan

Chapter 24
Life-Player Characters and Artificial Intelligence
Gonzo Pereira, INESC-ID, Portugal & University of Lisbon, Portugal
Antonio Brinon, INESC-ID, Portugal & University of Lisbon, Portugal
João Dias, INESC-ID, Portugal & University of Lisbon, Portugal
André Carvalho, INESC-ID, Portugal & University of Lisbon, Portugal
Joana Dumas, INESC-ID, Portugal & University of Lisbon, Portugal
Samuel Macaerenbos, INESC-ID, Portugal & University of Lisbon, Portugal
Joana Campos, INESC-ID, Portugal & University of Lisbon, Portugal
Marco Vais, INESC-ID, Portugal & University of Lisbon, Portugal
Iolanda Leite, INESC-ID, Portugal & University of Lisbon, Portugal
Carlos Martins, INESC-ID, Portugal & University of Lisbon, Portugal
Rui Prada, INESC-ID, Portugal & University of Lisbon, Portugal
Ana Paiva, INESC-ID, Portugal & University of Lisbon, Portugal
Chapter 51
Ultrainformal Game-Based Learning in Higher Education: A Framework towards the Effective Integration of Game-Based Learning in Higher Education using Emerging Ultrainformal Technologies
Anna Kasimati, University of Piraeus, Athens
Sofia Mysiakaki, University of Piraeus, Athens
Haris Bossa, University of Piraeus, Athens
Fotini Paraskeva, University of Piraeus, Athens

Chapter 52
Instructional Technology and the Nature of the Gifted and Talented
Jana Willis, University of Houston – Clear Lake, USA
Douglas J. Steel, University of Houston – Clear Lake, USA
Vanessa Dodo Seriki, Loyola University Maryland, USA

Chapter 53
Depth Cameras in AALT: Environments: Technology and Real-World Applications
Samuela Gasparini, Università Politecnica delle Marche, Italy
Enea Cipistrelli, Università Politecnica delle Marche, Italy
Susanna Spinsante, Università Politecnica delle Marche, Italy
Ennio Gambi, Università Politecnica delle Marche, Italy

Chapter 54
The MORPG-based Learning System for Multiple Courses: A Case Study on Computer Science Curriculum
Kuo-Yu Liu, Providence University, Taiwan

Volume III

Chapter 55
Engaging in Play through Assistive Technology: Closing Gaps in Research and Practice for Infants and Toddlers with Disabilities
Fiona S. Baker, Emirates College for Advanced Education, UAE

Chapter 56
Assistive Technologies for Brain-Injured Gamers
Jason Colman, University of Portsmouth, UK
Paul Gatayat, University of Portsmouth, UK

Chapter 57
A Formal Representation System for Modelling Assistive Technology Systems
John Gilligan, Dublin Institute of Technology, Ireland
Peter Smith, University of Sunderland, UK

Chapter 58
A Step toward Assistive Technology Evidence-Based Practices: Latest Dimensions of Information and Communication Technology
Boaventura DaCosta, Solers Research Group, USA
Sohohna Seo, Korea University, South Korea

Chapter 59
Analysis and Evaluation of Software-Artifact Based Course Environments
Sajad Mahmood, King Fahd University of Petroleum and Minerals, Saudi Arabia
Mostaz Ahmed, King Fahd University of Petroleum and Minerals, Saudi Arabia
Mohammad Ashrafi, King Fahd University of Petroleum and Minerals, Saudi Arabia

Section 4 - Utilization and Application

Chapter 60
Video Games as a Form of Therapeutic Intervention for Children with Autism Spectrum Disorders
Toby Mehl-Schneider, City University of New York, USA
Shalom Steinmetz, Brooklyn College, City University of New York, USA

Chapter 61
Serious Gaming for User Centred Innovation and Adoption of Disaster Response Information Systems
Kenny Meesters, Tilburg University, The Netherlands
Bartel Van de Walle, Tilburg University, The Netherlands

Chapter 62
Beyond Gaming: The Utility of Video Games for Sports Performance
Roma P. Patel, Duke University, USA
Jerry Liu, University of Southern California, USA
S. Khizer Khaderi, University of California, USA

Chapter 63
Measuring User Experience in Board Games
Jonathan Barbosa, St. Martin’s Institute of Higher Education, Malta

Chapter 64
The Play Theory and Computer Games Using in Early Childhood Education
Svetlana Gerukhenson, Volgograd State Socio-Pedagogical University, Russian Federation
Georgy Gerukhenson, Volgograd State Technical University, Russian Federation

Chapter 65
The Travelling Race: A Persuasive Game to Stimulate Walking Behaviour of Older Persons in Low SES Neighborhoods
Valentijn Visch, Delft University of Technology, The Netherlands
Ingrid Mulder, Delft University of Technology, The Netherlands
Wessel Bos, Delft University of Technology, The Netherlands
Richard Prins, Erasmus Medical Center, The Netherlands

Chapter 66
Game-Based Learning as a Promoter for Positive Health Behaviours in Young People
Andrew Sean Wilson, Birmingham City University, UK

Chapter 67
Auditory Experiences in Game Transfer Phenomena: An Empirical Self-Report Study
Angelica B. Ortiz de Gortari, Nottingham Trent University, UK
Mark D. Griffiths, Nottingham Trent University, UK

Chapter 68
A Randomized Controlled Trial to Evaluate Learning Effectiveness Using an Adaptive Serious Game to Teach SQL at Higher Education Level
Thomas Hainey, University of the West of Scotland, UK
Mario Sollano, University of the West of Scotland, UK
Thomas M. Connolly, University of the West of Scotland, UK

Chapter 69
Levelling (Up) the Playing Field: How Feminist Gamers Self-Identify and Learn in Online Communities
Sarmista Das, Champlain College Saint-Lambert, Canada

Chapter 70
Games for Top Civil Servants: An Integrated Approach
Hester Stuble, TNO, The Netherlands
Josine G. M. van de Ven, TNO, The Netherlands
Micah Hrehovcic, HKU University of Arts – Utrecht, The Netherlands

Chapter 71
Gleaning Strategies for Knowledge Sharing and Collective Assessment in the Art Classroom from the Videogame, “Little Big Planet’s Creator Spotlights”
Renee Jackson, Concordia University, Canada
William Robinson, Concordia University, Canada
Bart Simons, Concordia University, Canada

Chapter 72
Football Manager as a Persuasive Game for Social Identity Formation
Linda K. Kaye, Edge Hill University, UK

Chapter 73
Fifth Graders’ Flow Experiences in a Digital Game-Based Science Learning Environment
Meixun Zheng, North Carolina State University, USA
Hiller A. Spires, North Carolina State University, USA

Chapter 74
Modeling Gameplay Enjoyment, Goal Orientations, and Individual Characteristics
John M. Quick, Arizona State University, USA
Robert K. Atkinson, Arizona State University, USA

Chapter 75
Identifying Group Processes and Affect in Learners: A Holistic Approach to Assessment in Virtual Worlds in Higher Education
Kate Thompson, The University of Sydney, Australia
Brett Marakasukite, The University of Sydney, Australia

Chapter 76
The Use of Facebook as a Pedagogical Platform for Developing Investigative Journalism Skills
Ricky Auyeung, Swinburne University of Technology, Australia
Saba Behahui, Swinburne University of Technology, Australia

Chapter 77
H3lp33r: How Gamers Speak with Impenetrable Efficiency
R. Kelly Aune, University of Hawaii at Manoa, USA
Matthew Sharratt, Situated Research, LLC, USA
Dana D. Suthers, University of Hawaii at Manoa, USA
Chapter 78
Rhetoric of Games: Utilizing the Game of Tavistock Method on Organizational Politics Training
Ben Tran, Alliant International University, USA

Section 5 - Utilization and Application

Chapter 79
Psychological Aspects of Serious Games
Elizabeth Boyle, University of the West of Scotland, UK

Chapter 80
Critical Transport: A Serious Game to Teach the Recommendations for the Transport of Critically Ill Patients
Cludia Ribeiro, INESC-ID, Universidade Técnica de Lisboa, Portugal
Tinggo Antunes, INESC-ID, Universidade Técnica de Lisboa, Portugal
Joao Pereira, INESC-ID, Universidade Técnica de Lisboa, Portugal
Micaela Monteiro, Serviço de Urgência Geral Centro Hospitalar Lisboa Ocidental, Portugal

Chapter 81
Consumer Attitudes toward Online Video Game Purchases
Wilson Ozue, University of Gloucester, UK
Michael Borrelli, London Metropolitan University, UK

Chapter 82
The Applicability of Gaming Elements to Early Childhood Education
Holly Toorell, University of Wollongong, Australia
Alison Freeman, University of Wollongong, Australia

Chapter 83
Games and Social Networks
Yulia Bachvarova, Cyntexis, The Netherlands
Stefano Bosco, Cyntexis, The Netherlands

Chapter 84
Driving Home the Message: Using a Video Game Simulator to Stem Attitudes Away From Distracted Driving
Edward Downs, University of Minnesota Duluth, USA

Chapter 85
Rehabilitation Systems in Ambient Assisted Living Environments
A. M. Middleton, National University of Ireland Maynooth, Ireland
R. P. Hart, National University of Ireland Galway, Ireland
T. E. Ward, National University of Ireland Maynooth, Ireland

Chapter 86
Games for and by Teachers and Learners
Peter van Rosmaelen, Open University of The Netherlands, The Netherlands
Amanda Wilson, University of the West of Scotland, UK
Hans Hummel, Open University of The Netherlands, The Netherlands

Chapter 87
My Click is My Bond: The Role of Contracts, Social Proof, and Gamification for Suspects to Reduce Pseudo-Activism and Internet Trolling
Jonathan Bishop, European Parliament, Belgium

Chapter 88
Experiential Play in Simulation Sandbox Games: A Review of What We Know About Why Players: Art Coey
Dominicus Tornqvist, Griffith University, Australia

Chapter 89
Leadership Behaviors among Gamers and Student Leaders
Ho Wei Tshen, Clinical and Forensic Psychology Branch Ministry of Social and Family Development, Singapore
Angeline Khoo, Nanyang Technological University, Singapore

Chapter 90
Simulation Games as Interventions in the Promotion of Social Skills Development among Children with Autism Spectrum Disorders
Carolyn Kinsell, Solers Research Group, USA
Boaventura DaCosta, Solers Research Group, USA
Angélique Nasah, Solers Research Group, USA

Chapter 91
Time Factor Assessment in Game-Based Learning: Time Perspective and Time-on-Task as Individual Differences between Players
Mireia Usart, Universitat Ramon Llull (ESADE), Spain
Margalida Romero, Universitat Ramon Llull (ESADE), Spain

Chapter 92
Women and Men in Computer Science: The Role of Gaming in Their Educational Goals
Jill Denner, Education, Training, Research, USA
Eloy Ortíz, Education, Training, Research, USA
Linda Werner, University of California, USA

Chapter 93
The Persuasive Language of Action: Interaction in the Digital Age
Martin van Velsen, Carnegie Mellon University, USA

Chapter 94
A Case for Integration: Assessment and Games
Alex Moseley, University of Leicester, UK

Section 6 - Managerial Impact

Chapter 95
Students as Customers: Participatory Design for Adaptive Web 3.0
Lei Shi, University of Warwick, UK
Alexandra I. Cristea, University of Warwick, UK
Craig Stewart, Coventry University, UK

Chapter 96
Rhetoric of Play: Utilizing the Gamer Factor in Selecting and Training Employees
Ben Tran, Alliant International University, USA

Chapter 97
Assistive Systems for the Workplace: Towards Context-Aware Assistance
Oliver Korn, University of Stuttgart, Germany
Markus Funk, University of Stuttgart, Germany
Albrecht Schmidt, University of Stuttgart, Germany

Chapter 98
Career Development among Japanese Female Game Developers: Perspectives from Life Stories of Creative Professionals
Masahito Fujihara, Senshu University, Japan

Chapter 99
A Look inside the Current Climate of the Video Game Industry
Vachon M.C. Pugh, Electronic Arts, USA

Chapter 100
Providing Career Guidance to Adolescents through Digital Games: A Case Study
Ian Dunwell, Coventry University Coventry, UK
Petros Lameras, Coventry University Coventry, UK
Sara de Freitas, Coventry University Coventry, UK
Panos Petridis, Coventry University Coventry, UK
Maurice Hendrix, Coventry University Coventry, UK
Sylvester Arnab, Coventry University Coventry, UK
Kam Star, PlayGen, UK

Section 7 - Critical Issues

Chapter 101
Does Game Quality Refl ect Heuristic Evaluation? Heuristic Evaluation of Games in Different Quality Strata
Björn Striät, Stockholm University, Sweden
Fredrik Ruza, Stockholm University, Sweden
Magnus Johansson, Stockholm University, Sweden

Chapter 102
From the “Damsel in Distress” to Girl’s Games and Beyond: Gender and Children’s Gaming
Alison King, University of Ontario, Canada
Aziz Douai, University of Ontario, Canada

Chapter 103
Can Exergaming Promote Physical Fitness and Physical Activity? A Systematic Review of Systematic Reviews
Tuomas Kari, University of Jyvaskyla, Finland

Chapter 104
To Play or to Learn? A Review of Game-Based Math Learning for Motivation and Cognition
Joan J. Erickson, University at Albany, State University of New York, USA
Section 8 - Emerging Trends

Chapter 105
Learning by Playing: Is Gamification a Keyword in the New Education Paradigm?
Eduardo Díaz San Millán, University of Salamanca, Spain
Rubén Gutiérrez Priego, University of Salamanca, Spain

Chapter 106
Reducing Corruption and Protecting Privacy in Emerging Economies: The Potential of Neuroeconomic Gamification and Western Media Regulation in Trust Building and Economic Growth
Jonathan Bishop, European Parliament, Belgium

Chapter 107
Mobile Cloud Media: State of the Art and Outlook
Yi Xu, Auburn University, USA
Shiwen Mao, Auburn University, USA

Chapter 108
Towards a Feature-Driven Understanding of Students’ Emotions during Interactions with Agent-Based Learning Environments: A Selective Review
Jason M. Harley, University of Montréal, Canada & McGill University, Canada
Roger Azevedo, North Carolina State University, USA

Chapter 109
Towards a Mobile Learning Pedagogy
Scott E. Hamm, Abilene Christian University, USA
Jason Drysdale, University of Colorado Denver, USA
Diana Moore, New England College, USA

Chapter 110
Perceived Best Practices for Faculty Training in Distance Education
Michael G. McVey, Penn State University Harrisburg, USA

Chapter 111
“I Want Them to Feel the Fear…”: Critical Computational Literacy as the New Multimodal Composition
Clifford H. Lee, Saint Mary’s College, USA
Antero D. Garcia, Colorado State University, USA

Information Resources Management Association (IRMA) is a research-based professional organization dedicated to advancing the concepts and practices of information resources management in modern organizations. IRMA’s primary purpose is to promote the understanding, development and practice of managing information resources as key enterprise assets among IRM/IT professionals. IRMA brings together researchers, practitioners, academicians, and policy makers in information technology management from over 50 countries.