About the Contributors

Jonathan Bishop is an information technology executive, researcher, and writer. Having played video games on systems as early as the Atari VGS2600, before he finished high school he had programmed his first non-joystick operated video game on an Atari STE using a chair controller. This made his step into EEG operated gamification systems the natural research direction to take. Jonathan has 4 degrees, namely in multimedia studies, e-learning, law, and information systems. He has over 30 publications in journals, conference proceedings, and books. A fellow of the Royal Anthropological Institute and BCS – The Chartered Institute for IT, Jonathan has always been more interested in the human side of computing than the technology side. He has an increasing amount of research understanding the implications of Internet trolling, including understanding behavioural and social patterns. He is regularly interviewed by the media, including on the effect gamification can have in improving human understanding and interaction.

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Göknur Kaplan Akilli completed her undergraduate degree on Mathematics Education at Hacettepe University, Turkey, in 2001, and ranked first in graduating Class of Faculty of Education the same year. In 2004, she earned her master’s degree from Middle East Technical University (METU), with her thesis “A Proposal of Instructional Design/Development Model for Game-like Learning Environments: The FID’GE Model,” which is nominated to many national and international awards. Currently, she is pursuing a Ph.D. degree in Instructional Systems Program at Penn State University.

Dietrich Albert is professor of psychology at University of Graz, senior scientist at Graz University of Technology, Knowledge Management Institute and key researcher at the Know-Center Graz. Since 1993 Dietrich is the head of the Cognitive Science Section at the University of Graz, the Department of Psychology’s largest working group. In the preceding years, he was with the Universities of Göttingen, Marburg, Heidelberg, and Hiroshima. His research topics cover several areas, including learning and memory, psychometrics, anxiety and performance, psychological decision theory, computer-based tutorial systems, values, and behaviour. Dietrich’s actual focus is on knowledge and competence structures, their applications, and empirical research. By working with psychologists, computer scientists, and mathematicians, several academic disciplines are represented within his research team. Beside national activities, his expertise in European research and development projects is documented by several successful European projects.
Janice L. Anderson is an assistant professor of science education at the University of North Carolina at Chapel Hill. Prior to joining the faculty at UNC-Chapel Hill, she taught biology and anatomy in Ohio and worked in elementary classrooms in Massachusetts. Anderson received her Ph.D. in Curriculum and Instruction from Boston College with a focus on Science and Technology. Her dissertation research explored the use of a 3D virtual world (Quest Atlantis) to teach concepts related to water quality and ecosystems to urban fifth-grade students. Her research considers the impact of gender and learning outcomes on how students engaged with the game. The catalyst for her professional efforts has been the notion of improving students’ engagement with science and technology particularly among populations that are underrepresented in science, based on both gender and race.

Steven Battersby is a doctoral student in the Interactive Systems Research Group in the Computing and Technology Team at NTU. He has worked on many national and European research and development projects using computer games and games technology for the education and rehabilitation of people with disabilities. Two of his latest projects include the Virtual Cane; allowing blind people to develop spatial maps using virtual environments and Wii technology, and the Stroke rehabilitation project developing serious games and data gloves for home based rehabilitation.

Thomasina Borkman received her Ph.D. from Columbia University, NYC in 1969 in sociology. Sociology Professor at George Mason University since 1974 who combines teaching and research. Her research and consulting is in her specialty area of health, illness and disability, especially with self-help/mutual aid groups and nonprofit organizations nationally and cross-nationally. Between 1997-98 she co-taught the team aspects of an online course titled Taming the Electronic Frontier designed by Brad Cox; the course won the Paul Allen Distance Education national award in 1998 ($25,000 prize). Her major recent book is Understanding Self-Help/Mutual Aid: Experiential Learning in the Commons, Rutgers University Press, 1999.

David Brown is Professor of Interactive Systems for Social Inclusion at Nottingham Trent University, and Director of the Interactive System Research Group with the Computing and technology Team. He is EU Project Coordinator for several projects concerning games based learning and location based services for the education and rehabilitation of people with disabilities: RECALL Project http://recall-project.eu (Location based services for people with disabilities); GOET Project http://goet-project.eu (Serious games for people with learning disabilities); GOAL Project http://goal-net.eu (Serious games for people with learning disabilities); Game On Project http://gameon.europole.org (Serious games for prisoners with disabilities). David is a member of the International Steering Committees of the International Conference of Disability, Virtual Reality and Associated Technology (ICDVRAT), Interactive Technologies and Games (ITAG) and the European Conference of Games Based Learning (ECGBL).

Andy Burton is a research fellow at Nottingham Trent University in the Interactive Systems Research Group. He joined this team in April 2010 initially assisting Steven Battersby with the development of the IR Glove hardware and CLAHRC stroke rehabilitation games software. Previously to this he was a research fellow/associate at The University of Nottingham. Most recently Dr. Burton was ‘research fellow for 3D graphics and virtual reality’ in the Spatial Literacy in Teaching (SPLINT) Centre for Excellence in Teaching and Learning (CETL). In this role he developed stereoscopic applications for augmented 3D
environments, to aid teaching and learning in both specialised lecture rooms and in fieldwork scenarios, and recorded their pedagogic impact. His previous research was in applications of virtual reality and 3D graphics in teaching, simulation, forensics, psychology and health and safety training in the Computer Sciences and Mining Engineering departments at The University of Nottingham.

**Unai Diaz-Orueta** (PhD) is Psychology graduate (2000) and PhD (2006) at Deusto University (Spain). Clinical Psychologist at Crownsville Hospital Center (USA, 2000-2001), Bermeo Hospital, (Spain, 2001-2002), La Loma Geriatric Residence (Spain, 2003-2005), and Zutitu (Spain, 2005-2006). His doctoral dissertation “Effects of psychological intervention in cognitive decline of residentialized elderly people” was published by UMI Dissertation Publishing, Ann Arbor, MI (USA). From 2007-2008 he developed workshops of cognitive training, wellbeing, and laugh-therapy for older people, within IPACE Ltd, Vitoria (Spain). Since 2008, he works as a research psychologist in Fundación INGEMA, in projects related to ageing and physical disability. He is author and co-author of papers and articles related to ageing and application of technological aids for elderly people. In 2010, he published two books related to his doctoral dissertation: “The ageing process. A comprehensive perspective” and “Memory Gym: A cognitive stimulation program for elderly people based on objectives,” published by Deusto Publicaciones (Bilbao, Spain).

**Jon Dron** is a member of the Technology Enhanced Knowledge Research Institute and an Associate Professor in the School of Computing and Information Systems, Athabasca University (Canada’s open university), where he teaches various graduate and undergraduate courses. He is also an Honorary Faculty Fellow in the Centre for Learning and Teaching, University of Brighton, UK. Jon has received both national and local awards for his teaching, is author of various award-winning research papers and is a regular keynote speaker at international conferences. Jon’s research in learning technologies is highly cross-disciplinary, including social, pedagogical, technological, systemic and philosophical aspects of technology and learning design and management.

**Lindsay Evett** is a lecturer in the Computing and Technology Team. Her research is on accessibility and assistive technology, especially with respect to Serious Games, and Web-based content. She is a lecturer in Artificial Intelligence, and a member of Nottingham Trent University’s working group on accessibility. She is a co-investigator on the Recall European project on route-learning systems and location-based services for people with cognitive and sensory disabilities. She is a member of the ETNA European thematic network on assistive information and communications technologies.

**Loren Falkenberg** has been a faculty in the Haskayne School of Business for over 20 years. Her Ph.D. is from the University of Illinois and her MBA is from Queen’s University. She is currently the Associate Dean Research in Haskayne. She has been teaching and researching in the area of business ethics for over 20 years, and taught one of the first full semester business ethics courses in Canada. She is an editor for the Journal of Business Ethics. She has published in the *Journal of Business Ethics, Academy of Management Review, Journal of Management*, and *California Management Review*.

**Joel Foreman** is an associate professor in the English Department at George Mason University. He began teaching distance courses in 1996 and subsequently developed expertise in building and assessing Web based learning environments. As a member of GMU’s Program on Social and Organizational
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Learning from 1995 – 2001, he performed organizational learning studies sponsored by Hughes Information Technology Corporation, DynCorp, and Media General. He has been researching computerized instructional media since the 1980s and his applied experience includes documentaries he produced for NBC, public television, the Discovery Channel, and others. His current research is focused on game based learning and mobile learning.

Alison Freeman is an Honorary Fellow at the University of Wollongong. She has extensive experience in community informatics, policy development, project management and e-learning across both industry and academia.

Mark M. H. Goode is Professor of Marketing, Director of the Executive MBA and Chair of the ‘Marketing and Retailing’ field group at Cardiff School of Management at Cardiff Metropolitan University. He also has two degrees in Economics and a PhD in Marketing. His past research has looked at the effect on the gaming environment on human behaviour and the effect online environments have on factors such as trust, perceived risk and behavioural intentions. Mark holds a distinguished teaching award from Swansea University and has also held posts at Cardiff University (Lecturer in Quantitative Methods and Lecturer in Operations Management), Swansea University (Senior Lecturer in Marketing and later Reader in Marketing). Mark has over 25 years teaching experience in Welsh Universities and has taught over 20,000 university students.

Martin Hanneghan (BSc Hons, PhD) is a Principal Lecturer in Computing and Head of Enterprise at Liverpool John Moores University in the UK where he teaches on undergraduate and postgraduate courses in Computer Games Technology. He has served as a member of the programme and technical committees for a number of games conferences around the world including Cybergames, GAME-ON, GDTW, and SBGames. His research interests include serious game applications and software engineering for games.

Wen-Hao David Huang is an Assistant Professor of E-Learning in the Department of Human Resource Education at University of Illinois at Urbana-Champaign. His academic background, consisting of material science and engineering, educational technology, and executive business administration, has enabled him to conduct interdisciplinary projects for instructional and research purposes for years. Dr. Huang currently teaches Learning Technologies and Instructional Design in the context of human resource development and E-Learning. His research interests include (1) design of game-based learning environments, (2) design and evaluation of E-Learning systems for adult learners, (3) Web 2.0 emerging technologies and their impact on teaching and learning, (4) measurement and manipulation of cognitive load in multimedia learning environment.

Liz Keating is a fully qualified personal assistant who used to run a team of nurses in the NHS. She then went on to work towards a degree in history, carrying out research into Anglo Saxon stone sculpture. She became interested in assistive technology due to being registered blind as a way of maintaining her independence, and to find new ways to keep interacting with people so that she does not become socially isolated.
Stephanie B. Linek graduated from the University of Wuerzburg (Germany), in 1997 with a diploma (MS) in Psychology. From 1998 to 1999, she worked as a postgraduate researcher at the University of Heidelberg (Germany). After postgraduate studies at the University of Koblenz-Landau (Germany), in 2002 she received the Certificate “Media- and Communication Psychologist.” From 2003 to 2006, she was a postgraduate researcher at the Knowledge Media Research Center in Tuebingen (Germany) and worked on her PhD thesis on “Gender-specific design of narrated animations: Speaker/Gender Effect and the schema-incongruity of information.” In 2007 she received her Dr. rer. nat (D.Sc.) by the University of Tuebingen. From 2006 to 2010, she worked in the Cognitive Science Section at the University of Graz (Austria) in several EC-research projects and as university assistant. Since 2011, she is expert for usability evaluation at the ZBW – Leibniz Information Centre for Economics in Kiel (Germany). Her research interests are in several areas of social media and game-based learning as well as in usability, evaluation and methodology.

Hao Liu is a research associate of Computer Science department of Nottingham Trent University, where he is working for a NHS sponsored serious games project for stroke rehabilitation. His work focuses on designing a makerless tracking system to control a series of 3D games by user’s hand gestures and body languages. Hao obtained his PhD from University College London, where he examined the problem of flexible and transparent distributed computing. During that time, Hao was also working for various projects including a NASA leaded project, which was to calculate the lunar surface temperature using parallel processing technology. Hao has published more than 10 journal and conference papers.

Birgit Marte has a Diploma in Psychology from the University of Graz (Austria). From April 2004 to April 2008, she was working at the Cognitive Science Section (http://css.uni-graz.at) of the University of Graz on several European Commission-funded R&D projects that focused on e-learning. Her research addresses the representation and assessment of knowledge and competences as well as the evaluation of the effectiveness of e-learning.

Patrick Merritt is currently a student at Nottingham Trent University studying for a BSc in Computer Science (Games Technology). As part of his degree, he undertook a work placement at the university as a research assistant, working on several assistive technology and games projects. He is currently completing his final year, including a major project on virtual reality technology and its benefits to disabled user groups.

Henk Herman Nap (MSc PhD) received an MSc degree in Cognitive Ergonomics at Utrecht University (2002) and a PhD degree (2008) at Eindhoven University of Technology (EUT). The research during his PhD focused on stress in senior computer interaction. After his PhD, he worked as a post-doctoral research fellow on senior gamers and distributed gaming at the Game Experience Lab of the Human-Technology Interaction group at the EUT (2008-2010). He published journal and conference papers on gaming research and Gerontechnology and is active as a reviewer and project coordinator. Since 2011, he works as a project leader at Stichting Smart Homes, in European and national projects related to rehabilitation gaming, persuasive technologies, eHealth, and smart living.
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Oleksiy (Olex) Osiyevskyy is a PhD candidate in Strategy and Global Management area at the Has-\nkeayne School of Business, University of Calgary. His research interests lie at the intersection of strategy, 
etrepreneurship and innovations studies. In 2012 Oleksiy was awarded the prestigious Izaak Walton 
Killam Memorial Scholarship (becoming a Killam Scholar), and the Eyes High International Doctoral 
Scholarship from the University of Calgary. His papers were recognized with best paper awards at the 
United States Association for Small Business and Entrepreneurship (USASBE) conference two years 
in a row (2012, 2013). The results of Oleksiy’s research were presented at top academic conferences, 
and were accepted for publication in the Journal of Small Business Management and Entrepreneurial 
Practice Review.

Torsten Reiners is Senior Lecturer in Logistics at the Curtin University, Australia. His research and 
teaching experiences are in the areas of operations research, but include instructional design, development 
of adaptive learning environments, distant collaboration, and mobile learning, which is also manifested 
in his PhD Thesis about adaptive learning material in the field of operations research. Dr Reiners is 
the co-founder of the Second Life Island University of Hamburg and Students@work, an initiative to 
promote education in Web 3D. He participated in multiple projects to use 3D spaces for learning sup-
port; i.e. to improve the authenticity of learning in classes about production and simulation. In his latest 
project VirtualPREX, he explored professional experience for pre-service teacher in 3D spaces replicat-
ing authentic environments by using bots as actors in the role-play. After being an international research 
student at the University of Texas in Austin, he worked 9 month as a research fellow at the University of 
California, Davis, U.S. (Diploma Thesis). Since then, he had multiple research visits with universities 
in Australia, invited talks and over 20 international co-authors on his publications.

Allan Ridley was awarded an MRes with distinction in Computer Science by Nottingham Trent 
University in 2008. He is a PhD student carrying out research into accessible interactive systems. He 
is an assistive technology specialist has worked as a trainer in a blind and visually impaired person’s 
resource centre. He is registered blind.

Judy Shasek, M.S. ExerLearning, is poised at the intersection of fitness, education, and technol-
ogy. The author contributes vital expertise and resources in each of these key areas. Judy Shasek has 17 
years of experience as a fitness/education consultant and 12 years as a public school teacher, curriculum 
designer, teacher trainer, and grant writer. By assimilating a massive amount of research and drawing 
on the invention and energy of many educators, researchers and fitness leaders around the country, Ex-
erLearning was first delivered via Generation FIT. It is a program that developed organically over five 
years– in real schools with diverse students.

Nasser Sherkat received a B.Sc Honours degree in Mechanical Engineering from University of 
Nottingham in 1985. He received a Ph.D. in high speed geometric processing for continuous path gen-
eration, from the Nottingham Trent University in 1989. He is currently Associate Dean of Science and 
Technology at The Nottingham Trent University. His interests are use of intelligent pattern recognition 
in facilitating ‘natural’ human computer interaction and multimodal biometrics.
Nick Shopland has over 10 years experience in design, implementing and evaluation virtual training environments, serious games, location-based services, and assistive technology for people at risk of social exclusion, including people with a learning disability, people at risk of unemployment and young people at risk of social exclusion. He has a particular experience in the development of virtual training environments to travel train young people with learning disabilities in accessing work-based opportunities; to train people with low-level skills in entering the Care Industry, and is currently extending the travel training and route learning work to mobile devices.

Penny Standen is Professor in Health Psychology and Learning Disabilities at the University of Nottingham. Her main area of research is developing and evaluating virtual environments and interactive software for people with intellectual disabilities and from this grew an interest in the value of using serious games to help the acquisition of independence skills and improve cognition. She is currently collaborating with colleagues on the use of VR in stroke rehabilitation. She is a member of the programme committee for the International Conference Series on Disability, Virtual Reality and Associated Technologies an Associate member of the British Psychological Society and on the editorial board of the Journal of Health Psychology.

Stephen Tang (BSc, MSc) is a lecturer in Computer Games at Liverpool John Moores University (LJMU) in the UK. Prior to joining LJMU he was a lecturer at Tunku Abdul Rahman College (TARC) in Malaysia where he taught on undergraduate courses in multimedia and computer games design and technologies. Stephen has also served as a member of programme and technical committee members for game conferences such as Asian Game Developers Summit, GDTW and CyberGames. He is a technical reviewer of the International Journal of Computer Games Technology. Stephen is currently a PhD candidate at LJMU. His research interests include game-based learning, serious games design and development, and model driven engineering.

Sharon Tettegah is an Associate Professor in the Department of Curriculum and Instruction, at the University of Illinois, Urbana Champaign. Dr. Tettegah holds a doctorate degree in Educational Psychology, and also degrees in Curriculum and Supervision and Philosophy. In addition, she holds an appointment at the Beckman Institute where she is currently in the Division of Biotechnology, Cognitive Neuroscience Group. Her research focuses on the use of technologies to enhance teaching and learning with an emphasis on simulations and empathy.

Holly Tootell is a Senior Lecturer in the School of Information Systems and Technology at the University of Wollongong, Australia. She has extensive links across the Information Systems and Early Years Education disciplines, drawing together her academic knowledge with strong communication skills to develop practical and useful solutions for educators.

Shefali Virkar is research student at the University of Oxford, UK, currently reading for a D.Phil. in Politics. Her doctoral research seeks to explore the growing use of Information and Communication Technologies (ICTs) to promote better governance in the developing world, with special focus on the political and institutional impacts of ICTs on local public administration reform in India. Shefali holds an M.A. in Globalisation, Governance and Development from the University of Warwick, UK. Her Master’s thesis analysed the concept of the Digital Divide in a globalising world, its impact developing countries and the ensuing policy implications. At Oxford, Shefali is a member of Keble College.
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Marion Walker is Professor in Stroke Rehabilitation at the University of Nottingham. She is an occupational therapist and has played a leading role in developing a research culture within her own profession. She has served as President of the Society for Rehabilitation Research, the only multidisciplinary rehabilitation research group in the United Kingdom and was also Chairman of UK Stroke Forum from 2006-2008. She is Associate Director (Rehabilitation Lead) of the UK Stroke Research Network. Marion has both led and steered many stroke rehabilitation research projects including service evaluations of stroke patients not admitted to hospital, centre care for young stroke patients and therapy provision in nursing homes. Her research experience also encompasses evaluations of specific components of stroke therapy including: leisure, dressing, outdoor mobility, and behavioural approaches in patients with aphasia and depression. Marion is a strong advocate of patient partnership and co-chairs the Nottingham Stroke Research Consumer Group.

Lincoln Wood is a Senior Lecturer and researcher in operations, logistics, and supply chain management at Curtin University of Technology in Perth, Australia. He received the CSCMP’s Young Researcher Award in 2009 in the USA and later earned his PhD at the University of Auckland. He draws on a range of industry experience in distribution companies and an international consulting company. While at Auckland, he developed a strong interest in effective supply chain education, and in 2010, he received the Outstanding Research Award at the International Higher Education Conference. He has published in leading international journals including Transportation Research Part B: Methodological, International Journal of Operations & Production Management, The Service Industries Journal, and Habitat International.