About the Contributors

Mark Grimshaw is a Reader in Creative Technologies in the School of Business & Creative Technologies at the University of Bolton, United Kingdom, where he runs the Emotioneering Research Group. He possesses an honours degree in music, an MSc in music technology, and a PhD in computer game sound from South Africa, England, and New Zealand and is widely published in the area of computer games, particularly on the topics of immersion and sound. Mark’s previous book was entitled The Acoustic Ecology of the First-Person Shooter and he is also the lead developer for WIKINDX, an Open Source, Virtual Research Environment in wide use around the world.

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Ahmed Alaa Abdel-Meguid was born in Cairo, Egypt to Alaa Abdel-Meguid and Azza Tawfik. Soon afterwards, his family moved to the Midwestern United States where they soon made a home for themselves. His first video game was Joust for the Atari 5200 at age six. He started in game design as a game-master for tabletop roleplaying games such as Dungeons and Dragons during his high-school years. After earning his Bachelor’s of Organizational Leadership at Illinois State University, he immediately went on to The Guildhall at Southern Methodist University to earn his Masters of Interactive Technology with a specialization in Level Design. As of writing this biography, he is currently working on The Old Republic at BioWare Austin as a World Builder. In his spare time, he plays the guitar and violin, swings fire, and paints little space marines and orcs.

Valter Alves is a lecturer of Computer Science at the Informatics Department of the Polytechnic Institute of Viseu, Portugal. He has taught diverse courses to Informatics Engineering and Technology and Design of Multimedia students. He holds a degree in Informatics Engineering and a MsC in Information Systems and Technologies, both from the Faculty of Sciences and Technology of the University of Coimbra, where he is now a PhD candidate under the supervision of Professor Licínio Roque. Valter is also a researcher at the Center for Informatics and Systems of the University of Coimbra. His research interests include human–computer interaction, user experience, computer game design, sound design, context, emotions, and research targeting handicapped people. Currently his research is focused on the enrichment of user experience through soundscape design.

Axel Berndt studied computer science and music at the Otto-von-Guericke University in Magdeburg, Germany. He is currently working there as a computer music researcher. His research interests comprise expressive performance analysis and modelling, musical structure analysis, automatic com-
position, arrangement, and adaptation for interactive media scoring. Beyond that, Axel Berndt is active as a musician and composer.

Karen Collins is Canada Research Chair in Interactive Audio at the Canadian Centre of Arts and Technology, University of Waterloo, Canada. She is the author of a book on game audio, *Game Sound: An Introduction to the History, Theory and Practice of Video Game Music and Sound Design* published by The MIT Press, and editor of *From Pac-Man to Pop Music: Interactive Audio in Games and New Media* published by Ashgate.

Stuart Cunningham was awarded the BSc degree in Computer Networks in 2001 and, in 2003, was awarded the MSc Multimedia Communications degree with Distinction, both from the University of Paisley (UK). In 2009 he was awarded the degree of PhD in Data Reduced Audio Coding by the University of Wales (UK). He is a Fellow of the British Computer Society (BCS), Chartered IT Professional (CITP), Member of the Institution of Engineering & Technology (IET) and Member of the Institute of Electrical and Electronics Engineers (IEEE). Dr Cunningham was a member of the MPEG Music Notation Standards (MPEG-SMR) working group. His research interests are in the areas of digital audio, computer music, human perception of sound, and audio compression techniques. In his spare time, Stuart is an avid mountain biker and performs in a Pink Floyd tribute band named Pink Lloyd.

Michael J. Dixon is Professor of Psychology at the University of Waterloo. He is one of the foremost authorities on synaesthesia (an anomalous type of perception). His current research into problem gambling is aimed at identifying those elements of the gambling experience that lead to measurable changes in behaviour—changes which may, potentially, lead to problem gambling.

Milena Droumeva has a Bachelors degree in Communication (focusing on acoustic communication and acoustic ecology) and media studies. Then she completed a Masters in Interactive Arts and Technologies focusing on interactive soundscape design for responsive environments and ambient intelligent games. She has since worked on a variety of game sound projects and has a particular interest in adapting sonification techniques and environmental sound for games. Currently, she is pursuing a Doctorate in Education exploring the cultural and epistemological implications of secondary orality and the soundscape. She is interested in drawing connections between listening experiences in designed soundscapes, and our practices and conceptions around knowledge. She did not grow up as a gamer but came to gaming and a subsequent keen interest in game sound through procrastination from other graduate work.

Andy Farnell is a computer scientist from the UK specialising in audio DSP and synthesis. Author of *Designing Sound*, his original research and design work champions the emerging field of Procedural Audio. Between consultancy for pioneering game and audio technology companies he teaches widely, as resident lecturer and visiting professor at several European institutions. Andy is a long-time advocate of free open source software, educational opportunities and universal access to enabling tools and knowledge.

Jonathan Fugelsang is Assistant Professor in Cognitive Psychology at the University of Waterloo. His research interests span several topics in cognitive psychology and cognitive neuroscience, though
his primary focus is in higher level cognition. He has recently joined the problem gambling research
team at the University of Waterloo.

Guillaume Roux-Girard is a Master’s Degree student in film studies at the University of Montreal. His current research focus on the different roles of sound in horror video games. His recent publications include an appendix chapter on film studies and video games in the Video Game Theory Reader 2 (Routledge, 2009) and a chapter on the Alone in the Dark series (1992-2008) in the anthology Horror Video Games: Essays on the Fusion of Fear and Play (McFarland, 2009).

Vic Grout was awarded a BSc in Mathematics and Computing from the University of Exeter in 1984 and a PhD in Communication Engineering from Plymouth Polytechnic in 1988. He has worked in senior positions in both academia and industry for twenty years and has published and presented over 200 research papers and three books. He is currently Professor of Network Algorithms at Glyndŵr University, Wales, where he leads the Centre for Applied Internet Research. Professor Grout is a Chartered Engineer, Chartered Electrical Engineer, Chartered Scientist, Chartered Mathematician and Chartered IT Professional, a Fellow of the Institute of Mathematics and its Applications, British Computer Society and Institution of Engineering and Technology and a Senior Member of the Institute of Electrical and Electronics Engineers. He chairs the biennial international conference series on Internet Technologies and Applications (ITA 05, ITA 07 and ITA 09).

Kevin Harrigan teaches game design and is the lead researcher and contact person for the Problem Gambling Research Team at the University of Waterloo. His primary research interest is in gambling addictions with a focus on why so many slot machine gamblers become addicted.

Daniel Hug has a background in music, sound design, interaction design and project management in applied research. From 1999 he has investigated sound and interaction design-related questions through installations, design works and theoretical publications. Since 2005, he teaches sound studies and sound design at the Interaction Design and the Game Design departments of the Zurich University of the Arts, Switzerland. Daniel is currently pursuing a PhD on sound design for interactive commodities at the University of the Arts and Industrial Design of Linz, Austria, is management committee member in the European COST-initiative Sonic Interaction Design, and greatly enjoys the fact that his profession “requires” him to play computer games regularly.

Kristine Jørgensen is a postdoctoral research fellow at the Department of Information Science and Media Studies, University of Bergen, Norway. She holds a Ph.D. in Media Studies from the University of Copenhagen with a thesis on the functional role of computer game sound. Her current research project is funded by a grant from the Norwegian Research Council, and focuses on the communicative aspects of computer games, fiction in games, and the relationship between the user interface and the gameworld. Jørgensen is also a board member of Joingame, the Norwegian network for games research and development.

Mats Liljedahl Since the mid 1980’s, Mats Liljedahl has been working with sound, music and digital and interactive media in various forms and contexts. Since 2000 he has been at the Interactive Institute, Sweden, involved in research and development projects related to sound and sound design, all built on
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and carried by interactive media. Mats Liljedahl has a special interest in how people perceive sound and how sound affects us cognitively, emotionally and intuitively. This interest has led to projects focusing on how sound can be used in new ways and in new contexts. Examples of projects include audio based games as research tools and as potential new gaming products, sound design for information and new tools and methods for working with sound design.

Eoin Mullan obtained his undergraduate Degree in Electronic and Software Engineering from the University of Ulster in 2005. This included an industrial placement year spent writing software for British Telecom. In 2006 he completed a Masters in Sonic Arts at the Sonic Arts Research Centre (SARC) in Queen’s University Belfast, which combined his background in programming with elements of music, sound design, composition, musical interface design, acoustics, and physical modelling. Eoin returned to SARC to undertake his PhD in the area of physical modelling for real time sound synthesis in computer games and virtual environments. He is currently researching efficient ways to synthesise contact sounds for objects that may be modified in real-time and for arbitrarily shaped objects.

David Murphy is a lecturer and researcher at the Department of Computer Science, University College Cork, Ireland where he is also a director of the Interactive Medical Computing Lab. In a previous life, David was a professional musician, and a Multimedia Engineer at Apple Computer, where he was responsible for Audio and MIDI in Apple products. In 1999 David left Apple to setup the Multimedia section of the Computer Science Department, UCC. His research interests include spatial sound, serious games, and virtual reality.

Lennart Nacke received one of Europe’s first Ph.D. degrees in Digital Game Development from Blekinge Institute of Technology, Sweden. He is currently working on affective and entertainment computing as a postdoctoral fellow in the Human-Computer Interaction Lab of the University of Saskatchewan, Canada. He chaired and co-organized several expert panels on psychophysiological player measurement and interaction, game usability and UX at academic conferences (e.g., DiGRA, Future Play, CHI) and industry venues (e.g., GDC Canada). As much as an avid gamer, he is a passionate scientist, whose research interests are psychophysiological player testing and interaction for example with EEG (i.e., brainwaves) and EMG (i.e., facial muscle contractions) or eye tracking as well as gameplay experience in player-game interaction, technology-driven innovation (e.g., playability metrics, affective computing) and innovative interaction design with digital entertainment technologies.

Flaithrí Neff is a lecturer and researcher at the Department of Electrical & Electronic Engineering, Limerick Institute of Technology, Ireland. He is also a research member of the IDEAS Research Group at the Department of Computer Science, University College Cork, Ireland, where he is currently completing his PhD studies. In 2002 he attained a first class honours MSc degree at the University of Limerick, Ireland specializing in Audio Technology. His research interests are in virtual sonic interface design and intelligent hearing systems. He is particularly focused on applying his research to issues encountered by visually-disabled users of technology.

Linda O Keeffe (www.lindaokeeffe.com) is a sound artist currently pursuing a PhD within the department of sociology, Maynooth and her working title is How I See What I Hear. She has exhibited internationally and in Ireland where she lives. O Keeffe is also in the process of composing a body of work with musician composer Tony Doyle for performance and CD.
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**Richard Picking** is a Reader in Computing at Glyndŵr University in Wales and Deputy Director of the Centre for Applied Internet Research (CAIR). He has a BSc (Hons) degree in Computing and Operational Research from Leeds Polytechnic (UK, 1986), an MSc in Control Engineering and Information Technology (University of Sheffield, UK, 1987) and a PhD in Interactive Multimedia Interface Design from Loughborough University (UK) in 1996. His research interests cover various aspects of user-interface design and usability. Rich is a passionate saxophonist and keen songwriter.

**Ulrich Reiter** is a researcher and lecturer working in the fields of audiovisual quality perception, subjective assessment methodologies, and interactivity issues in audiovisual applications at the Norwegian University of Science and Technology (NTNU) in Trondheim, Norway. He holds a Master’s degree in electrical engineering from RWTH Aachen, and a PhD in media technology from TU Ilmenau, both in Germany. Ulrich was the development coordinator for the cross-platform, object-based, multi-processing, and real-time audio rendering engine TANGA used in the IAVAS I3D MPEG-4 player. His work has been published in numerous AES-, IEEE- and other journals, conference proceedings and papers. He was the recipient of the ‘IEEE International Symposium on Consumer Electronics (ISCE) Best Paper Award’ in 2005 and 2007. Ulrich’s current research focus is on cross-modal effects in audiovisual media.

**Licínio Roque** obtained a PhD in Informatics Engineering from the University of Coimbra while developing Context Engineering, a socio-technical approach to Information Systems Development. He has been practicing research and development in diverse fields: management information systems, individual and organizational learning, technologies for online communities, and computer games. Over the last 10 years he taught postgraduate courses on Software Engineering, Human-Computer Interaction, Ludic Learning Contexts, Game Studies and Development, using studio and project-based methodologies. He also teaches a course on game design as strategy for exploring cultural heritage as part of the EuroMACHS European Master Program. Currently, he does research on design methodology and technologies for multiplayer online games. He is Adjunct Teaching Professor at Carnegie Mellon University, on the MSE Program.

**Holly Tessler** is Senior Lecturer and Program Leader in the Music Industry Management program at the University of East London, UK. She recently completed her PhD on music and branding at the Institute of Popular Music at the University of Liverpool.

**Angela Tinwell** As a Senior Lecturer in the School of Business & Creative Technologies at the University of Bolton, Angela Tinwell is researching the subject area of the Uncanny for a PhD. Recent works, including *Uncanny as Usability Obstacle*, authored for the HCI International Conference 2009, and *Survival Horror Games – An Uncanny Modality*, for the Thinking After Dark Conference, 2009, investigate the implications of the Uncanny Valley phenomenon for realistic, human-like virtual characters within 3D immersive environments. Angela Tinwell teaches modules on the Computer Games Design and Computer Games Art Courses at the University of Bolton which involve the design and creation of 3D characters for Computer Games.

**Paul Komninos Toprac** is a lecturer at The Guildhall at Southern Methodist University, where he focuses on teaching and the research, design, and implementation of game technology-based applications. He has more than the twenty years of experience in the software industry, in roles ranging from...
CEO to product manager to consultant. During his studies at the University of Texas at Austin, Paul was the producer and designer of a science-based computer game called Alien Rescue: The Game, which was used in his dissertation entitled The Effects of a Problem Based Learning Computer Game on Continuing Motivation to Learn Science. He holds a Bachelor’s of Science in Engineering, a Master’s of Business Administration, and a Ph.D. in Curriculum and Instruction from The University of Texas at Austin. In his spare time, Paul hopes to convince universities and schools that students can have fun and learn at the same time.

**Jacob Wallén** holds a Bachelor’s degree of arts in the field of computer game design from the University of Skövde, Sweden. He has been making music and working with sound for the greater part of his life, and the education at the University of Skövde made it possible for him to combine his interest for sound with computer games. His bachelor thesis, Från smet till klarhet ‘from batter to better’, is about creating a complete and balanced sound design for computer games. He has been in charge of sound and music for a couple of smaller game projects and he recently finished working with the game Testament (www.testamentgame.com), a game funded by the Church of Sweden.

**Ulf Wilhelmsson** holds a Ph.D from the University of Copenhagen, Denmark. His Ph.D dissertation, Enacting the Point of Being, has a focus on computer games and film theory. Wilhelmsson was one of the initiators of the computer game studies programs that have been offered since 2002 by the school of Humanities & Informatics at the University of Skövde, Sweden and he is currently working as senior lecturer and coordinator for these programs. He is a member of the InGaMe Lab research group (www.his.se/iki/ingame) at the University of Skövde. His research interests lies primarily within computer game studies and integrate film theory, cognitive theory and theories concerned with the audiovisual construction of space and narratives.

**Andrew Williams** is a Principal Lecturer in the School of Business & Creative Technologies at the University of Bolton. He has published on engagement and motivation in game development processes and on the use of competitive strategy games as a way of motivating students. He is currently leading a project relating to the use of gesture-driven interfaces for games. He leads a team of seven in delivering three games-related undergraduate programmes and teaches on the Advanced Games Technology, Games Design Team Project and Games Evaluation modules. He has sat on a number of review panels for the provision of games undergraduate degrees and he is currently external examiner for the University of Hull’s MSc in Games Programming.