

International Series on Computer Entertainment and Media Technology

Series Editor

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Burbank, CA, USA

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Duncan Williams • Newton Lee
Editors

Emotion in Video Game Soundtracking

 Springer

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Contents

1	Welcome and Introduction from the Editors	1
	Duncan Williams and Newton Lee	
2	An Overview of Emotion as a Parameter in Music, Definitions, and Historical Approaches	7
	Duncan Williams	
3	Emotion in Speech, Singing, and Sound Effects.	17
	Duncan Williams	
4	Affectively-Driven Algorithmic Composition (AAC).	27
	Duncan Williams	
5	An Auto-Ethnographic Approach to Creating the Emotional Content of Horror Game Soundtracking	39
	David Bessell	
6	Brain Computer Music Interfacing (BCMI)	51
	Duncan Williams	
7	When the Soundtrack Is the Game: From Audio-Games to Gaming the Music.	65
	Alexis Kirke	
8	Motion Controllers, Sound, and Music in Video Games: State of the Art and Research Perspectives	85
	Federico Visi and Frithjof Faasch	
9	Repurposing Music According to Individual Preferences for Personalized Soundtracks	105
	Duncan Williams	
10	Sounding the Story: Music in Videogame Cutscenes	115
	Giles Hooper	

11 The Impact of Multichannel Game Audio on the Quality and Enjoyment of Player Experience 143
Joe Rees-Jones and Damian T. Murphy

12 Concluding Remarks 165
Duncan Williams and Newton Lee

About the Editors

Newton Lee is CEO of Newton Lee Laboratories, LLC; president of the Institute for Education, Research, and Scholarships; adjunct professor at Woodbury University School of Media, Culture & Design; and editor-in-chief of Association for Computing Machinery Computers in Entertainment. Previously, Lee was a computer scientist at AT&T Bell Laboratories, senior producer and engineer at the Walt Disney Company, and research staff member at the Institute for Defense Analyses. He was the founder of Disney Online Technology Forum, creator of Bell Labs' first-ever commercial AI tool, and inventor of the world's first annotated multimedia OPAC for the U.S. National Agricultural Library. Lee graduated Summa Cum Laude from Virginia Tech with a B.S. and M.S. degree in Computer Science, and he earned a perfect GPA from Vincennes University with an A.S. degree in Electrical Engineering and an honorary doctorate in Computer Science.

Duncan Williams is a Researcher in the Digital Creativity Labs at the University of York, UK. He holds a PhD in Signal Processing and Psychoacoustics from the University of Surrey, UK, and has been a psychoacoustic consultant for Honda Automotive, the British Broadcasting Corporation, and the UK Government. Duncan is a Fellow of the Higher Education Academy and was nominated by the students of Plymouth University in 2016 for an "Inspirational Teaching" award. He also holds teaching qualifications from Surrey University (2004), Apple Inc. (2007), and Plymouth University (2015). His catalogue of music-for-picture includes a published back catalog with EMI, Sony/ATV, and DeWolfe. Duncan is an editorial board member of *Musicae Scientiae* (Sage), the *Journal of Creative Music Systems* (University of Huddersfield Press), and the *Encyclopedia of Computer Graphics and Games* (Springer). A blog and publications list is updated regularly at www.duncanwilliams.info.

About the Authors

David Bessell has contributed a chapter titled “An auto-ethnographic approach to creating the emotional content of horror game soundtracking.”

The original meaning of melodrama is music and drama. This chapter explores how the video game context in relation to non-linear musical form impacts on the ability to generate appropriate emotions at appropriate points in gameplay, particularly relevant to horror soundtracking that relies heavily on music to augment emotional impact.

Dr. Dave Bessell has been active in the field of popular music for many years. He also studied classical composition and orchestration at the Royal College of Music, jazz guitar with John Etheridge, holds a doctorate in Music, and currently teaches Music and Music Technology at Plymouth University. He can be found performing on guitar or electronics from time to time in a variety of styles. He was one of the pioneering writers on the subject of video game soundtracking, and he is currently working on soundtrack for a horror game in production.

Giles Hooper (Senior Lecturer in Music, University of Liverpool) has contributed a new chapter on the role and function as well as the potential challenges of music and sound in a virtual reality context taking a focus on the use of music in cut scenes.

Giles Hooper completed his PhD, *The study of music and the status of musical knowledge*, at the University of Keele in 2003. After teaching at Keele, Exeter, and Bristol, he was appointed as a lecturer in the School of Music in 2005. Hooper’s work is currently in wide-ranging research interests including twentieth-century music, critical theory, and analysis. In 2010, Hooper was appointed Head of the School of Music. His best known publication is *The Discourse of Musicology* published in 2006. https://en.wikipedia.org/wiki/Giles_Hooper

Alexis Kirke presents a chapter on the emerging field of “audio-only” games. There has been an increasing popularity in audio-only games, particularly for mobile devices. These are usually based on spoken-word and sound-effect scene setting. This chapter investigates whether this can be taken further into games, which are

entirely abstract sonic and music experiences, and presents a first example based on Minecraft: Musicraft.

Dr. Alexis Kirke is a Senior Research Fellow in Plymouth University's Interdisciplinary Centre for Computer Music Research. He publishes in AI and HCI and is also a well-known interdisciplinary composer and artist.

Damian T. Murphy is Professor of Sound and Music Computing, Department of Electronics, University of York, where he has been a member of academic staff since 2000, and the University Research Champion for Creativity. His research focuses on virtual acoustics, spatial audio, physical modelling, and audio signal processing. He has been principal investigator on a number of related AHRC and EPSRC funded projects relating to room acoustics simulation and auralisation and published over 100 journal articles, conference papers, and books in the area. He is a member of the Audio Engineering Society, a Fellow of the Higher Education Academy, and a visiting lecturer to the Department of Speech, Music and Hearing at KTH, Stockholm, where he specialises in spatial audio and acoustics. He has also held visiting researcher status at a number of universities internationally. Dr. Murphy is an active sound artist and in 2004 was appointed as one of the UK's first AHRC/ACE Arts and Science Research Fellows, investigating the compositional and aesthetic aspects of sound spatialisation, acoustic modelling techniques, and the acoustics of heritage spaces. His work has been presented in galleries nationally and at festivals and venues internationally and included varied collaborations with writers, photographers, and interactive digital artists. He is a founding member of Geodesic Arts through which most of his more recent work has been produced.

Joseph Rees-Jones is a PhD candidate working with Dr. Murphy at the University of York in the Department of Electronics. He is an active member of the audio engineering society working in the York Audio Lab. He holds an MSc by Research in Music Technology, having conducted extensive research investigating the implementation of spatial audio in video games.

Federico Visi (Post-doctoral Research Fellow at the Universität Hamburg, Germany) has contributed a chapter that focuses on how motion capture can be used to control procedural audio and real-time signal processing synthesis in particular in extracting motion features from various devices and using them as an input to generative algorithms.

Federico Visi is a composer, producer, and sound designer. After obtaining his master's degree in communication, multimedia, and design, he studied music for image in Milan and composition at the music academy Accademia Pianistica in Imola. His studies and research focus on the interaction between sound, image, and motion and on creating meaning through the combination of multiple means of expression. He composed music and designed the sound for several films, documentaries, installations, and commercials and performed live in solo sets, with bands and in contemporary theatre and dance performances. <http://www.federicovisi.com/bio/>