About the Contributors

**Klaus Bredl** is Professor for Digital Media at the Institute for Media and Educational Technologies at Augsburg University. Before this, he held a Professorship for Social Informatics/Technology in Human Services at Neubrandenburg University of Applied Sciences. He started as an Assistant Professor in the Institute for Information Systems at the University of Regensburg, where he worked on a nationally funded interdisciplinary research project on the competence development of consultants. In Augsburg, his team is focused on research and teaching in the field of Digital Social Media, especially Virtual Worlds, Media Literacy, and Technology-Enhanced Learning.

**Wolfgang Bösche** (born 1971) was Research Assistant and Lecturer at the Department of Psychology, Technische Universität Darmstadt, Germany. He received his Doctorate in 2002 for his dissertation on adaptive network models of classification learning. In 2011, he habilitated on cognitive and motivational effects of violent video games. His research and teaching interests encompass multimedia learning and media psychology (with focus on the effects of violent video games), cognitive and mathematical psychology, and methodology. At the moment, he is Interim Professor at the Institute of Psychology at the University of Education Karlsruhe.

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**Jana Birkenbusch**, born in April 1989, earned her Master of Science degree in Psychology from Technical University Darmstadt in September 2012, after four years of study, and started her Doctoral studies in October 2012. In her dissertation, which is supervised by Ph.D. Wolfgang Ellermeier, she investigates the perception of time by means of axiomatic measurement theory. Further research interests include the experience of presence in virtual environments, concepts of affective learning, language perception, and memory. While pursuing her degree, Jana Birkenbusch worked as Research Assistant for Applied Cognitive Psychology at the Institute of Psychology and the Fraunhofer-Institut für Graphische Datenverarbeitung IGD in Darmstadt, where she gained experience in current research on working memory and software evaluation, as well as in interdisciplinary team work.
Michael Brach is General Manager of the Institute of Sport and Exercise Science (University of Muenster, Germany). Before, he worked as a researcher at the universities of Bonn and Bochum. His research interests include mobility and ageing, and implementation and evaluation of ageing-related exercise programs in different settings, especially on the individual and on the institutional level. He studied sport science, mathematics, and psychology at the universities in Bochum, Duisburg, and Hagen. After conducting research on EEG and motor control, he received a Ph.D. in Human Movement Science from the University of Potsdam. He is an Outside Lecturer (Privatdozent) at the Karlsruhe Institute of Technology (KIT), and he leads the standardization group on mobility in ambient assisted living on behalf of the German Commission for Electrical, Electronic, and Information Technologies (DKE).

Oliver Christ works as a Post-Doc Researcher and Lecturer in the Psychological Department of the Technische Universität Darmstadt, Germany. Additionally he is the CEO of the Blue Flower Company founded in 2011 together with Sebastian Ohlmes. The main focus of his research can be divided in human-related advantageous and disadvantageous learning factors during work with human machine interfaces. This includes pain research, sensory motor incongruence, visual search, ergonomics, prosthesis technology evaluation, human-computer interaction, creativity and serious games, and computer-based trainings. Beside the work as a consultant and researcher, he plays guitar in several projects and as a solo artist.

Sarah Cook is a Survey Methodologist at RTI International. She has been involved in survey research for 8 years and specializes in instrument design and in-depth interviewing for cognitive and usability testing purposes. She is particularly interested in developing data collection methods for new technologies, including mobile devices, social media, and virtual worlds. She focuses her research on gathering user experience and cognition to improve data validity and reduce respondent burden in both self- and interviewer-administered surveys. Her research also concentrates on improving instrument design and usability testing methods of data collection on mobile devices.

Dick Davies started his career as a Clinical Scientist working in hospitals across the globe before ‘settling down’ and retraining into the social sciences and taking an academic career path. Discovering IT in the early 1980s and then on finding that IT innovation had moved from the university sector into the commercial space with the rise of the Internet, he moved into the corporate sector in the 1990s and then into start ups during the dot.bust era of 2000s, developing technology-based learning environments. Not losing his taste for innovation, he co-founded Ambient Performance in 2005 to introduce serious virtual worlds and ambient mobile applications into Europe. Recognising that, as technologies and the markets for them mature and differentiate, he is now working on developing a focused service for 3D immersive environments for clinical professionals.

Elizabeth Dean is a Survey Methodologist at RTI International. She has over 14 years’ experience designing and pretesting surveys for social research, including topics such as health behaviors, exposure registration, social and family relationships, and substance abuse. She specializes in the design of surveys to be administered via emerging digital communication technologies. Her research focuses on developing and testing innovative applications of pretesting methods, including cognitive testing, questionnaire appraisal, and usability assessment. She has published research on conducting surveys in virtual worlds, conducting cross-cultural questionnaire appraisals, improving usability test methods, and using cognitive interviews to test consent forms.

Li Felländer-Tsai was appointed Professor of Orthopaedics at Karolinska Institutet in 2006. She is the Chairman of the Department of Clinical Science, Intervention and Technology and Director of the Center for Advanced Medical Simulation. She is active in orthopedic education, training, and research as well as advanced surgical technology. She has developed and implemented a technique for monitoring of synovial tissue metabolism and inflammation with intraoperative and postoperative microdialysis. Other fields of research include virtual reality and surgical simulation. She is President of the Swedish Orthopedic Society and past registrar and Chairman of the Swedish ACL Register (quality registry for cruciate ligament reconstruction). She chaired the process of Accreditation of the Center for Advanced Medical Simulation and Training as an American College of Surgeons Level I Educational Institute and is now Director of the Center.

Christopher J. Ferguson is Department Chair of Psychology and Communication and an Associate Professor of Psychology and Criminal Justice. Most of his research work has examined the issue of media effects on behavior, including violent video game effects. His work has questioned popular beliefs linking violent media with aggression, and has taken a sociological view, examining fears and biased scholarship of video game effects in the context of historical moral panics of media. He holds a Ph.D. in Clinical Psychology from Texas A&M International University. He lives in Laredo, TX, with his wife and young son.

Stefan Göbel holds a PhD in Computer Science from TU Darmstadt and has long-term experience in Graphic Information Systems, Interactive Digital Storytelling, Edutainment Applications, and Serious Games. After five years work as Researcher at the Fraunhofer Institute for Computer Graphics, from 2002 to 2008, he was heading the Digital Storytelling Group at the Computer Graphics Center in Darmstadt. Late 2008, Dr. Göbel moved to TUD and is heading the prospering Serious Gaming group at the Multimedia Communications Lab. Stefan is the Initiator and Permanent Host of the GameDays, project leader of different research and science meets business projects on regional, national, and international level. Further, he is author of numerous papers and member of different program committees in the area of multimedia technologies, edutainment, and serious games.
Sue Gregory is a Lecturer in ICT Education and Research Fellow at the University of New England, Australia. She is a long-term adult educator and has created and manages several virtual world spaces including classrooms and a playground for students. She has been teaching in Second Life since 2008 and is focused on adult learning, engagement, immersion, and the efficacy of virtual worlds for education. In particular, Sue has been exploring student perceptions of their learning in a virtual world. Sue is the Chair of the Australian and New Zealand Virtual Worlds Working Group (VWWG) and Project Leader of an OLT-funded project on virtual professional experience: VirtualPREX: Innovative assessment using a 3D virtual world with pre-service teachers.

Michael Gutjahr studied Psychology at Technische Universität Darmstadt. In 2010, he finished his thesis on the topic of cognitive priming effects of an interactive virtual story on perception, attribution, and behavior. Since 2012, he prepares his Ph.D. on the topic of sensor-based measurement of user experience at the Multimedia Communication Lab and the Department of Psychology at Technische Universität Darmstadt. His research interests include cognitive psychology, methodology, and user experience measurement.

Sandro Hardy finished his Master in Computer Science at Technische Universität Darmstadt in 2010 with a thesis proposing concepts and methodologies for the creation of serious games for sports and health. After that, he joined the research group at Multimedia Communication Lab (KOM) to focus on Serious Games and Physical Exertion. In his Ph.D., he focusses on the development of methodologies to measure and increase the effects of Serious Games for sports and health, also known as exergames. A major topic is the development of sensor-based interaction systems for the seamless progress measurement and adaption of exergames. His work includes the development of various prototypes such as “ErgoActive,” “TheraKit,” and “BalanceFit” for cardio, balance, and coordination training. He also coordinates various research projects in this field.

Klaus Hauer is the Director of the Research Department of the Bethanien Hospital Geriatric centre at the University of Heidelberg and Assistant Professor at the Medical Faculty of Heidelberg. He is also co-opted to the Faculty of Empirical Social and Behavioural Science. He studied Sport Science and Biology at the University of Heidelberg, made his PhD in Sport Science at the Institute of Sport Science at the University of Heidelberg. His research interests include mobility and ageing, biological ageing research, and methodological developments. Prof. Hauer is a member of the Prevention of Falls Network Europe (PROFANE) and the Network of ageing at the University of Heidelberg (NAR). He is reviewer in international peer reviewed journals and the author of more than a hundred scientific publications and has received numerous research prices for his scientific work.

William LeRoy Heinrichs’ earned a MD w/Honors (Univ. Oklahoma), an OB/GYN Residency (Wayne State University, Detroit, MI), M.S. & Ph.D. degrees (Biochem, Univ. Oregon Health Sciences), and Ass’t to Prof Appointments, Univ. Washington, Seattle, WA. He’s a Josiah Macy, Jr. Faculty Fellow, an ACOG First Place Awardee for Research, and a Satava Awardee (MMVR). He served as Member & Chair of the NIH HED Study Section before arrival in 1976 at Stanford University as Professor & Chair of Obstetrics and Gynecology. There he advanced laparoscopic surgery, studying surgical simulators for enhancing surgical outcomes, and began developing Virtual Learning Environments (VLEs) for
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team training. Dr. H co-founded Innovation in Learning, Inc. producing two award-winning products, Clinispace™ and BattleCare™, selected as First and Grand Prize in the categories of “Artificial Intelligence in Training” and “Concept Design” in the Federal Virtual Worlds Challenge at GameTech 2011 and 2012. Dr. Heinrichs served as the 2012 President of AAGL’s Council of Gynecologic Endoscopy, and as founding member of the Surgical Education Foundation begun in 2012.

Maike Helm earned a Masters’ degree in Communication Research (2012) and a Bachelor of Arts degree in Applied Media Studies (2010) from Ilmenau University of Technology, Germany. In her studies, she concentrated on psychological aspects of media usage, especially on motivation and satisfaction models. Relating to this, she worked on several research projects focused on serious games and the rise of the online financing model crowdfunding. Additionally, she assisted the Department Media Management at Ilmenau University of Technology as a Graduate Student Assistant. Besides these topics, she specialized in the fields of public relations and journalism by working as a freelancer for several newspapers and PR agencies. Recently, she serves as a marketing manager for the S&S Media Group, which provides services for international IT and Web professionals.

Johannes Konert finished his Diploma in Computer Science and Attendant Studies in Cultural Studies at the Karlsruhe Institute of Technology (KIT) with a thesis proposing a Web-based knowledge management system for the integration of workflow and learnflow. After three years working on the foundation and development of the online social network Friendcafe as CEO and Senior Developer, he joined the research group at Multimedia Communication Lab (KOM) at Technische Universität Darmstadt to focus on Serious Games and Social Networks. He became a Ph.D. student of the DFG Research Training Group “Feedback-Based Quality Management in E-learning.” In his research, he focuses on the development of solutions to use Social Media concepts for knowledge transfer between peers in Serious Games.

Oliver Korn studied Computational Linguistics at the University Stuttgart and at Glasgow University. Since 2001, he works in projects focusing on Human Computer Interaction (HCI), assistive systems, and simulations. From 2001 to 2005, he worked for the University Stuttgart and the Fraunhofer Institute for Industrial Engineering (IAO). In 2003, he co-founded the Fraunhofer spin-off Konion, a software company he leads as CEO. As a certified Project Manager (IHK), he led several national HCI-related projects both in research and industry. From 2006 to 2007, he was Research Associate and Lecturer for interactive systems and simulations at the Stuttgart Media University. He currently lectures “Digital Factory” at the University of Applied Sciences in Esslingen and at the Steinbeis Business Academy as well as Game Design at the Stuttgart Media University. Since 2011, he does his Doctorate at the Visualization Research Center (VISUS) at the Stuttgart University on Interactive Assistive Systems and Gamification.

Dennis Maciuszek studied Media Author (Master of Arts), Computer Science (German Diplom, Swedish Licentiate), and Psychology (minor subject). From December 2008 to November 2012, he has been a Researcher and Teacher at the University of Rostock, Germany, working mainly in the area of Game-Based Learning. Dennis is currently finishing his PhD work at the University of Education Schwäbisch Gmünd, Germany, with an interdisciplinary focus on the design of learning activities in virtual worlds. Furthermore, employing his experience in video game design and writing for different media formats, he is planning for a future as a freelancer in the media business.
Hannah R. Marston is a Post-Doctoral Fellow at the Institute of Movement and Sport Gerontology, at the German Sport University, Cologne. Currently, Hannah is working on an EU-funded project (iStoppFalls) with six additional consortium partners (Austrian Institute of Technology, Neuroscience Research Australia – Sydney, University of Siegen, Kaasa-Dusseldorf, Philips – Netherlands, and Institute of Biomechanics – Valencia). Hannah has several areas of research interests which include: gender, rural ageing, gerontology, age cohorts (baby boomers, oldest old [85+], centenarians, etc.) HCl, video games/theory/design/engagement (technology), social networking, rehabilitation, and tele-health technologies. Previously, Hannah was elected by members of the Gerontological Society of America (GSA) to represent the Emerging Scholar and Professional Organization (ESPO), the student arm of the organization as the Technology Chair. Additionally, while undertaking this role, Hannah also represented the study body on the membership committee. Furthermore, she has been an active member of the student body for the British Society of Gerontology (BSG), and at present, Hannah is working with three colleagues from University of Kentucky, Eindhoven University of Technology, and Syracuse University in setting up the student chapter for the International Society of Gerontechnology (ISG). Hannah has actively volunteered to review papers for several conferences (GSA, BSG, CHI, ISG) and is currently a member of the editorial board for the Computer Games Journal.

Alke Martens is a Professor at the University of Education Schwäbisch Gmünd, Germany, leader of the research group “Computer Science and Instructional Design,” and elected Vice Rector for Research and International Affairs. She received her PhD in Computer Science from the University of Rostock, Germany, in Artificial Intelligence in the context of Intelligent Tutoring Systems. After that, she was Junior Professor at the University of Rostock and leader of the research group “eLearning and Cognitive Systems.” Her current research interests are formal methods, software engineering, modeling and simulation, teaching and training systems, and a combination thereof, e.g. in Game-Based Learning.

Philip McClenaghan studied Design and worked as a Designer in London and Munich before becoming Assistant Director of a Research Lab within the Institute of Digital Innovation (IDI) at Teesside University. Philip is currently a member of the Institute of Media and Educational Technology (IMB) at the University of Augsburg and lectures at both the University of Augsburg and at Augsburg University of Applied Sciences.

Florian Mehm is a Founding Member of the Serious Games Group of the Multimedia Communications Lab (KOM) of Technische Universität Darmstadt, since 2009. He continued his work on authoring tools from his previous position at the Computer Graphics Center in Darmstadt, where he was active from 2008 to 2009. His research areas include authoring systems for storytelling-based digital educational games and serious games, personalization, and adaptation in games and technologies for games and edutainment applications. The implementation of his concepts for authoring tools is the StoryTec authoring tool along with the associated framework of software tools, including a cross-platform player for serious games.
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**Joe Murphy** is a Survey Methodologist at RTI International with more than 15 years of experience researching the causes and solutions for issues related to survey quality and managing survey projects. His research focuses on the implementation of new data collection processes, new data sources, and analytic techniques to maximize data quality, increase response, and reduce costs. His recent work has been centered on data sources and techniques such as Internet search patterns, social media data analysis (e.g., Twitter), data visualization, crowdsourcing, and social research in virtual worlds. Mr. Murphy is the Director of the Program on Digital Technology and Society in RTI’s Survey Research Division. The program investigates the role of new technologies and social media in survey and social research.

**Christian Reuter** studied Computer Science at Technische Universität Darmstadt and finished his Master Thesis with the topic “Development and Realization of Methods and Concepts for Multiplayer Adventures” in 2011. He then joined the Multimedia Communication Lab, where his research focus includes the concept and design of multiplayer serious games and authoring concepts for multiplayer games. He is working on an extension for the StoryTec authoring platform that allows authors to create multiplayer games in the same non-technical manner as authoring of single player games in StoryTec.

**Kristina Richter** received her M.A. in Sciences of Education from Technische Universität Dresden and is now doing her PhD studies in Pedagogy and Mathematics Education at Technische Universität Darmstadt. She was a Scholar in the Research-Training Group on Feedback-Based Quality Improvement in E-Learning fully funded by the German Research Foundation (DFG). Her main research interest is in the exploration of technological support for cooperative learning and teaching in classroom and academic education and the potential of games for learning. Currently, she is working at a joint research project with the focus on the method of peer review for learning and teaching and mathematics (project PEDALE).

**Daniel Schultheiss** earned a PhD in Media and Communication Research (2010) and a Diploma (M.A. equivalent) in Media and Communication Studies (2007) at Ilmenau University of Technology. Since 2007, he has been a Doctoral candidate, and since 2008, a Research Assistant in the Department Media Management at Ilmenau University of Technology. Since 2010, he is a Senior Researcher (Post-Doc). In his research, Schultheiss focuses the areas of online communication, knowledge management, usage of video games, online entertainment, and consumer integration through the Internet. Besides others, Schultheiss is a member of the International Communication Association (ICA), the European Communication Research and Education Association (ECREA), and the International Association of CyberPsychology, Training, and Rehabilitation (iACToR). He is on the editorial board of *Journal of Gaming & Virtual Worlds* and serves as a reviewer for ICA, Cyberpsychology, Behavior, and Social Networking, as well as other conferences and journals.

**Marcelo Simão de Vasconcellos** is a Designer in Rio de Janeiro, working for Oswaldo Cruz Foundation, the oldest and most important public health institution in Brazil. He has a M.A. degree in Visual Arts, and now he is a PhD Candidate, researching Massively Multiplayer Online Role-Playing Games for applications on Public Health Communication. He focuses in the use of MMORPGs’ social and interactive qualities as ways to enhance population's understanding and participation in public health policies. In Oswaldo Cruz Foundation, he coordinates a small game design team, aiming to introduce the use of video games and board games in Brazilian Health Communication. He also organized the first Brazilian event about videogames applied for health, called “Saúde em Jogo” (Health in Game), which had its second installment in 2012.
Inesita Soares de Araújo is a PhD in Communication and Culture and a researcher of Oswaldo Cruz Foundation, the oldest and most important public health institution in Brazil. Her main areas of research are the fields of Communication and Public Policies, with emphasis on Collective Health. She also coordinates and teaches in the Post-Graduate Program for Information and Communication in Health (PPGICS) in the same institution. She is leader of the research group “Communication and Health” of CNPq (Brazil), coordinator of the working group “Comunicación y Salud” of the Latin American Association of Communication Researchers (ALAIC), and member of the working group “Communication and Health” of the Brazilian Association of Collective Health (ABRASCO). She is author of two books: *A Reconversão do Olhar* (The Reconversion of Looking) and *Comunicação e Saúde* (Communication and Health).

Sven Unkauf studied Social Economics at the University of Hohenheim. From 2008 to 2009, he worked for the University of Hohenheim as a Student Assistant at the Institute of Health Care & Public Management. From 2009 to 2010, he did an internship at the Department of Medical Psychology at the University Medical Center Hamburg-Eppendorf. Since 2010, he is employed at the Wohlfahrtswerk for Baden-Wuerttemberg. Initially, he worked as an Intern and a Student Assistant, after finishing his diploma thesis as a project manager. He is involved in several projects concerning technical assistance systems and games for older people. In 2012, he and his colleagues had a lectureship “Ambient Assisted Living” in general studies at the University of Applied Sciences in Esslingen.

Viktor Wendel received his Degree in Computer Science from the Julius-Maximilians-University of Würzburg in 2009. Since November 2009, he is working as a Research Assistant at the Multimedia-Communications-Lab at Technische Universität Darmstadt in the field of Serious Games. His research topics are Collaborative Learning concept development, Game Mastering concepts for instructor support in collaborative multiplayer Serious Games, and Adaptation of Serious Games for multi-user groups of learners. He is incorporated in the development of 3D multiplayer Serious Game prototypes like ‘Woodment’ or ‘Escape From Wilson Island’. Further, he is an Editor for *ACM SIGMM Records* and a member of the committee for the European Conference on Games Based Learning (ECGBL).

Josef Wiemeyer finished his M.Ed. with the subjects Physical Education and Ancient Latin at WWU Münster (Germany) in 1985. In 1989, he gained his Doctoral degree in Sport Medicine at WWU Münster (Title of the Doctoral thesis: “Measuring Central-Nervous Activation by Means of an Improved CFF Method”). In 1996, he finished his habilitation at WWU Münster (Title of the habilitation thesis: “Motor Learning: Sensory-Motor, Cognitive, and Emotional Aspects”). Since 1996, he has been with the Institute of Sport Science at the Technische Universität Darmstadt. His current research areas comprise motor control and learning, technology-supported learning and training, and serious games. He is reviewer of many national and international journals as well as (co-)chair of numerous conferences. He has published numerous books and papers dealing with motor learning, stretching, research methods, and technology-based learning (including serious games).
Steffen Winny is a Lecturer and Research Assistant at the Chair of Digital Media at the University of Augsburg, Germany. He has graduated and worked as a qualified social educational worker within different media-pedagogical projects before he earned his degrees on Master level in educational as well as in social science. During his work as a research assistant at the Chair of Educational Media Research of the University of Magdeburg, he was involved in several third-party-funded research projects related to informal learning in exhibitions and theme parks or on the issue of serious games in the context of the education for sustainable development. His research interests are focused on informal learning, serious games, and digital media for children.