About the Contributors

Youngkyun Baek Ph.D., has been teaching at Korea National University of Education since 1991. His research interests are on educational games, simulation, and mobile devices in education. He has presented several papers at SITE and NECC on gaming and simulations. He published three books on educational games and wrote two books chapters: “Design of an adaptive mobile learning management system based on student learning styles” in Handbook of Research on User Interface Design and Evaluation For Mobile Technology; “Revealing New Hidden Curriculum of Digital Games” in Handbook of Research on Effective Electronic Gaming in Education (IGI Global). He is co-author of the book entitled “Digital Simulations for Improving Education: Learning Through Artificial Teaching Environments” by IGI Global. Now he is authoring the book, “Gaming for Classroom-Based Learning: Digital Role Playing as a Motivator of Study”. He developed the Virtual English Adventure in Second Life recently.

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Ayotola Aremu has a B.Sc in Electrical and Electronics Engineering, M.Ed and Ph. D in Educational Technology. A Senior Lecturer in the Department of Teacher Education, University of Ibadan, Nigeria, she teaches courses on the integration of technologies into teaching and learning processes at both the undergraduate and post-graduate levels. Her research interests (in which areas she has published severally) include the design and development of mathematics teaching and learning resources which are developmentally appropriate and culturally relevant particularly for girls.

Brian Bauer is the founder and Managing Partner at Étape Partners LLC / OnTrack Technology, and is responsible for business development and overall company strategy. Brian is committed to designing innovative technology solutions for collaboration, learning and communication. With customers including the largest public-education system in the country and other Fortune 25 companies, Brian's expertise has made him an in-demand speaker/author on the topic of 3D virtual learning.

Lisa Carrington is a PhD candidate in the Faculty of Education, University of Wollongong. Lisa’s PhD utilises a comparative case study approach focusing on the experiences of first and final year pre-service teachers enrolled in an undergraduate education degree who engaged with a virtual learning environment provided by an online classroom simulation (ClassSim). Lisa Carrington expects to submit her PhD thesis late 2009. Lisa is currently teaching in the area of ICT education and research methods and is completing a Graduate Certificate in Research Commercialisation at the University of Wollongong.
Chaka Chaka is a senior lecturer in the Department of English at Walter Sisulu University (Eastern Cape, South Africa). His research interests include: collaborative learning (CL); concept mapping; computer-mediated communication (CMC); electronic learning (e-learning); computer assisted language learning (CALL); mobile learning (m-learning); mobile assisted language learning (MALL); Web 2.0 learning/Mobile Web 2.0 learning; Web 3.0/Mobile Web 3.0 learning; Semantic Web/Mobile Semantic Web; game based learning (GBL); online genre and discourse analysis; online/digital and virtual identities; knowledge management (KM); and learning organisation (LO).

Brian Ferry is a Professor in the Faculty of Education, University of Wollongong. His research interests focus on pre-service teacher education and the use simulations and games as authentic learning environments. He teaches science and ICT education and currently supervises nine PhD students. Outside of university he is interested in travel and golf.

Adam M. Friedman is an Assistant Professor, Director of Social Studies Education, and Director of Secondary Education in the Department of Education at Wake Forest University. He teaches undergraduate and graduate secondary social studies methods, undergraduate elementary social studies methods, a course in descriptive research in social studies, and conducts student teaching supervision. Among his research interests is to scrutinize the potential effect and impact of the Internet (particularly MMORPGs and other Web 2.0 tools) on citizenship education within the field of social studies. Dr. Friedman has published his research in various social studies and technology journals and book chapters. He was formerly the co-chair of the technology committee of the National Council for the Social Studies, and is currently the Treasurer of the North Carolina Council of Professors of Social Studies Education.

David Gibson is Associate Research Professor of Education at the Fulton Institute and Graduate School of Education at Arizona State University. He conducts research at the Equity Alliance at ASU (http://www.equityallianceatasu.org/) and is Executive Director of The Global Challenge Award (www.globalchallengeaward.org), a team and project-based learning and scholarship program for high school students that engages small teams in studying science, technology, engineering and mathematics in order to solve global problems. Dr. Gibson's research and publications include work on complex systems analysis and modeling of education, Web applications and the future of learning, the use of technology to personalize education, and the potential for games and simulation-based learning. He is creator of simSchool (www.simschool.org), a classroom flight simulator for training teachers, currently funded by the US Department of Education FIPSE program and eFolio, an online performance assessment system. His business, CURVESSHIFT, is an educational technology company (www.curveshift.com) that assists in the acquisition, implementation and continuing design of games and simulations, e-portfolio systems, data-driven decision making tools, and emerging technologies.

Art Graesser is a professor in the Department of Psychology, adjunct professor in Computer Science, and co-director of the Institute of Intelligent Systems at the University of Memphis. He received his Ph.D. in psychology from the University of California at San Diego. His primary research interests are in cognitive science, discourse processing, and the learning sciences. More specific interests include knowledge representation, question asking and answering, tutoring, text comprehension, inference generation, conversation, reading, education, memory, artificial intelligence, and human-computer interaction. He served as editor of the journal Discourse Processes (1996–2005), is the current editor of
Journal of Educational Psychology, is president of the Society for Text and Discourse, and was recent president of Artificial Intelligence in Education. He and his research team has designed, developed, and tested intelligent software in learning, language, and discourse technologies, including AutoTutor, Coh-Metrix, HURA Advisor, SEEK Web Tutor, MetaTutor, Operation ARIES!, Question Understanding Aid, QUEST, and Point&Query.

Shawn Graham is an Adjunct Professor of History with Grand Canyon University in Phoenix Arizona. He specializes in the use of digital media for learning and research in archaeology and history. He is also a Faculty Specialist in the Department of Faculty Training and Development at GCU, where he supports quality assurance and training for GCU’s online faculty. He trained at the University of Reading, and prior to working with Grand Canyon, held posts at the University of Manitoba, Brock University, Roehampton University, and Birkbeck College University of London. He has written extensively on agent-based simulations for studying antiquity, and produces historically-themed mods for Civilization IV.

Richard Hartshorne is an Assistant Professor of Instructional Systems Technology at the University of North Carolina at Charlotte. He earned his Ph.D. in Curriculum and Instruction from the University of Florida. At the University of North Carolina at Charlotte, his teaching focuses on the integration of technology into the educational landscape, as well as instructional design and development. His research interests primarily involve the production and effective integration of instructional technology into the teaching and learning environment. The major areas of his research interest are rooted in online teaching and learning, technology and teacher education, and the integration of emerging technology into the k-post-secondary curriculum.

G. Tanner Jackson is a Postdoctoral Research Fellow in the Department of Psychology at the University of Memphis. His academic background includes a B.A. in Psychology (2001, Rhodes College), a M.S. in Cognitive Psychology (2004, University of Memphis), and a Ph.D. in Cognitive Psychology (2007, University of Memphis). His research focus is in cognitive science and specific interests include human-computer interaction, intelligent tutoring systems, serious games, and pedagogical design. These interests have led him to collaborate on numerous learning environments (AutoTutor, AutoTutor-3D, HURAA, iSTART, Writing Pal) which span multiple funding agencies (NSF, IES, ONR, DoD, IDA, SBIRs). He has also served as a reviewer for several publication outlets (Journal of Educational Psychology, Discourse Processes, Journal of Media Psychology), and recently won the Cognition and Student Learning Prize at the 2009 Cognitive Science Society Conference.

Regina Kaplan-Rakowski has a strong background in foreign languages, which allows her to combine expertise in applied linguistics with the research opportunities that are available using modern instructional technology. Kaplan-Rakowski’s education includes B.Ed. in TESL, M.Ed. in European Studies, and M.A. in Foreign Languages and Literatures. Presently, she is pursuing a doctorate in Curriculum & Instruction (Instructional Technology & Design) at Southern Illinois University, Carbondale. Her current focus is research on the educational possibilities of teaching foreign languages in virtual environments, especially through virtual worlds and digital games. Nevertheless, she has also accumulated detailed research interests in second language acquisition, especially in bilingualism/multilingualism, code-switching, and the application of mnemonics in language acquisition and instruction.
Elisabeth Katzlinger-Felhofer is research assistant and lecturer at the Department of Data Processing in Social Sciences, Economics and Business, Johannes Kepler University Linz, Austria. She has degrees in business administration and business education. She received her doctorate in business administration from the Johannes Kepler University Linz, Austria. Her research focus is in business education and technology enhanced learning. Early childhood education and game-based learning is another research interest. She teaches information processing, e-tutoring and business and internet, it is an introductory course to e-business.

Kevin Kee is the Canada Research Chair of Humanities Computing, and an Associate Professor of History, at Brock University in St. Catharines, Ontario. He researches best practices for the design, development and use of computer simulations and serious games for history. He has written extensively on history computing and has developed history Web sites, simulations and games. He also specializes in Canadian cultural history. Before arriving to Brock in 2005, he was a Director and Project Director at the National Film Board of Canada (1999-2002), and an Assistant Professor at McGill University (2002-2005).

Lisa Kervin is a lecturer in the Faculty of Education, University of Wollongong. She has taught across the primary grades and has been employed in consultancy roles within New South Wales education systems. She graduated in July 2004 with her PhD and her thesis was focused on the professional development of teachers in literacy. Lisa Kervin’s current research interests are related to the literacy development of children, the use of technology to support student learning and teacher professional development.

Hoe Kyeung Kim Ph.D. is an Assistant Professor of TESOL program, Department of Teacher Education at Cleveland State University, Ohio. At Cleveland State University, she teaches master’s and undergraduate courses of second language acquisition, TESOL methods and materials, assessment and evaluation for ESL/Bilingual class, and TESOL practicum. She received her Ph.D. in Foreign and Second Language Education with a certificate in Advanced Educational Technology from the University at Buffalo. She is currently working on ESL/EFL learners’ participation patterns in online discussions. Her research interests focus on second language acquisition, educational technology and teacher education. Since 2000, she has presented her research on language teaching and computer use at numerous national and international professional conferences, including TESOL, AERA, CALICO and SITE. She is a co-editor of Research in Second Language Learning in the 2011 volume. Her articles are published in peer-reviewed journals including Foreign Language Annals and Calico Journal.

Christian Sebastian Loh is an Assistant Professor of Instructional Design Technology and one of the coordinators for the /Collaboratory for Interactive Learning Research/ (CILR) at the Southern Illinois University, Carbondale. He also serves as President (2008-2009) for the Multimedia Production Division (MPD) of the Association for Educational Communications and Technology (AECT), reviews journal papers as an associate editor for the International Journal of Games and Computer-Mediated Simulation (IJGCMS), and judges professional serious game competitions. His publications include journal articles and book chapters on and about serious games, assessment, music education, and emerging technology. Currently, he is pioneering the research on "Information Trails": a user behavior analysis framework for performance assessment within multi-user virtual environment, including serious games and virtual worlds.


**About the Contributors**

**Hélder Fanha Martins** is currently writing his PhD thesis on information systems applied to education and training and has written several articles on the topic of virtual teams. His experience in the fields of technology extends to the project management sector as well. Hélder Fanha Martins is lecturer of business management at the Lisbon School of Accounting and Administration (Lisbon Polytechnic). He is currently teaching a Business Simulation course as well as a Principles of Management course.

**Danielle S. McNamara** is a professor in the Department of Psychology and the Director of the Institute for Intelligent Systems at the University of Memphis. Her academic background includes a Linguistics B.A. (1982), a Clinical Psychology M.S. (1989), and a Ph.D. in Cognitive Psychology (1992; UC-Boulder). Her current research ranges a variety of topics including text comprehension, writing strategies, building tutoring technologies, serious games, and developing natural language algorithms. The goal of her research is to further our theoretical understanding of cognition and to apply that understanding to educational practice by creating and testing educational technologies (e.g., Coh-Metrix, iSTART, Writing Pal). She has served on the editorial boards of Discourse Processes, Memory & Cognition, and JEP:LMC and currently serves as Associate Editor for three journals (topiCS, the Cognitive Science Journal, the Journal of Educational Psychology). She has served on numerous review panels for funding agencies and on society governing boards.

**June Moore** is currently employed as a Research Assistant at the University of Worcester on a joint project between the Department of Psychology and Computing at the Worcester Business School. Her expertise lies in education theories and instructional design principles. Her research interests involve the mapping of these theories and principles onto the design and development of serious games. June has developed and evaluated serious games for the teaching of Literacy and Numeracy in Primary Schools in the UK. Central to her research is a close iterative involvement with both teachers and pupils.

**Daniel W. O’Brien** is a doctoral student in Educational Psychology with a focus on Cognition and Instruction at the University of Illinois at Chicago. He received a M.Ed. in Educational Psychology with a concentration in MESA (Measurement, Evaluation, Statistics, and Assessment) from UIC. He is a former middle-school Language Arts teacher and received a B.A. in Creative Writing from San Francisco State University. His research interests include the assessment of ill-structured problem solving, the use of computer games in problem-based learning and applications of Rasch models. His curriculum vita is available at dwobrien.wordpress.com.

**Martyn R. Partridge** is Professor of Respiratory Medicine in Imperial College London, NHLI Division based at the Charing Cross Hospital, and Honorary Consultant Physician to Imperial College Healthcare NHS Trust. He is Lead Director of the North West London Comprehensive Local Research Network. His academic interests are in evaluating the delivery of respiratory health care. Prof. Partridge is Immediate Past President of the British Thoracic Society. For two decades he was (Honorary) Chief Medical Advisor to Asthma UK (previously known as the National Asthma Campaign) and was involved in the production and dissemination of the British Asthma Guidelines from 1990 to 2008. He currently chairs the UK Department of Health Asthma Steering Group. He is an elected member of the Council of the Royal College of Physicians, Final Year Undergraduate Coordinator for the Faculty of Medicine, Imperial College London and on the Clinical Steering Committee of London Ambulance Service.
Collin Price started his career teaching physics at the British School of Brussels, Belgium for some six years. After obtaining a Ph.D in electronic engineering from the Catholic University of Leuven in Belgium, he joined the University staff and taught physics to first year undergraduates. He is currently Principal Lecturer in Computing at the University of Worcester where he teaches computer game development, Java programming and concepts and philosophy of computing. His research interests involve computer science education, theory and application of serious games, and self-organising pattern forming systems in biophysics. He collaborates in teaching and research with Moscow State University.

Louise Sauvé Professor at Télé-université, Quebec’s distance education institution, received her doctorate in Educational Technology from the University of Montreal in 1985. She is Director of the Center for Expertise and Research in Lifelong Learning (SAVIE) for which she has obtained many major research grants and contracts. Dr. Sauvé has received numerous awards, notably the medal of the National Assembly of Quebec and the Special Prize of the Quebec Minister of Education, and has presented more than 250 scientific papers and workshops in North America, Europe, Asia, Central and South America, North Africa, and Australia. She has directed 20 university-level distance education courses and produced more than 60 research reports. Dr. Sauvé has published more than 160 research papers, review articles and book chapters. She also serves as a reviewer for several funding agencies and journals. Dr. Sauvé and her colleague Dr. Kaufman recently completed a $3 million, five-year project entitled Simulation and Advanced Gaming Environments (SAGE) for Learning. They currently hold an SSHRC research grant and are continuing their work in this area.

Maria Toro-Troconis is a senior learning technologist at the Faculty of Medicine, Imperial College London. Her main role is to support the development and delivery of the Faculty’s e-learning strategy. Maria’s background is in Computer Science and Human Factors. Maria is currently undertaking research in the area of game-based learning in virtual worlds. She initiated the Imperial College London Second Life region. She is also currently the technical lead and manager of this project. Her key skills include instructional design, coordination across distributed teams, business analysis and project management. She also has an in depth knowledge of International Learning Standards and their implementation across platforms.

Phillip J. VanFossen is the James F. Ackerman Professor of Social Studies Education and Director of the Ackerman Center for Democratic Citizenship in the College of Education at Purdue University. He is also the Associate Director of the Purdue University Center for Economic Education (and holds a courtesy appointment in the Krannert School of Management at Purdue) where he teaches introductory economics courses for the Economics department. He is the program author for the high school economics text Economics Alive! The Power to Choose (Teachers Curriculum Institute, 2009) His research interests include how social studies teachers use the Internet and digital media in their teaching and in 2008, he co-edited The Electronic Republic?: The Impact of Technology on Citizenship Education (Purdue University Press). Recently, this research interest has led him to explore the potential of virtual worlds (e.g., MMORPGs such as World of Warcraft) for social studies and citizenship education.

Tamara Vaughan is a teacher with the Western Quebec School Board, and a designer and teacher with LearnQuebec, the Leading English Education and Resource Network, which provides curricular materials and online learning to high school students across the province. She was educated at the University of Maine, McMaster University, and the University of Manitoba.