Richard E. Ferdig is the RCET Research Professor and Professor of Instructional Technology at Kent State University. He works within the Research Center for Educational Technology and also the School of Lifespan Development & Educational Sciences. He earned his PhD in educational psychology from Michigan State University. At Kent State University, his research, teaching, and service focus on combining cutting-edge technologies with current pedagogic theory to create innovative learning environments. His research interests include online education, gaming, and what he labels a deeper psychology of technology. In addition to publishing and presenting nationally and internationally, Ferdig has also been funded to study the impact of emerging technologies.

Sara de Freitas is director of Research at the Serious Games Institute (SGI) – an international hub of excellence in the area of games, virtual worlds and interactive digital media for serious purposes, including education, health and business applications. Situated on the Technology Park at the University of Coventry, Sara leads an interdisciplinary and cross-university applied research group. Based as part of the largest commercial arm of any UK university, the SGI applied research group - with expertise in AI and games, visualization, mixed reality, augmented reality and location aware technologies – works closely with international industrial and academic research and development partners. Sara is currently working on the Technology Strategy Board-part-funded Serious Games – Engaging Training Solutions project developing three serious games demonstrators, and Chairs the UK Lab Group.

* * *

Adam Ingram-Goble is a doctoral student in the learning sciences program at Indiana University. Stemming from his master’s work in computer science, Ingram-Goble is interested in the intersection of gaming, learning, and programming for contextualizing education. He has worked on the Quest Atlantis project since 2005, developing curricula and game elements, but has recently shifted his focus to placing the design tools of QA in the hands of its players.

Adrienne Massanari (amassanari@luc.edu) is an Assistant Professor of New and Digital Media in the School of Communication at Loyola University, where she serves as the Program Director for the Center for Digital Ethics and Policy. Her research interests include the social and cultural impacts of new media, information architecture and user-centered design, youth culture, and gaming.

Albert Ritzhaupt is an Assistant Professor of Instructional Technology at UNCW and taught the course Games, Simulations and Virtual Worlds offered in the Watson School of Education.
About the Contributors

**Amos Brocco** obtained his Msc. in Computer Science (major) / Mathematics (minor) from the University of Fribourg (Switzerland) in 2005. Since the end of 2005 he is working as Ph.D. student with the Pervasive and Artificial Intelligence research group at the University of Fribourg. His thesis is focused on bio-inspired techniques for grid and peer-to-peer systems. His research interests are in the area of distributed swarm intelligence, adaptive network algorithms and bio-inspired techniques. His activities also include teaching assistance for undergraduate and post-graduate courses.

**Andrew Wodehouse** is a Lecturer in Design at the Department of Design Manufacture and Engineering Management at University of Strathclyde since September 2003. He graduated as an MEng in Product Design Engineering at the University of Glasgow/ Glasgow School of Art and Ing from the Hanzehoge-school Groningen, the Netherlands, before working as a product design engineer for a number of design consultancies, including Cambridge Consultants Ltd. Research projects include the Digital Libraries for Distributed Innovative Design Education and Teamwork (DIDET), and Knowledge and Information Management Through Life (KIM). His PhD focuses on digital information support for concept design.

**Anna Akerman** is an Assistant Professor of Communications at Adelphi University and a Visiting Scholar at New York University’s Department of Psychology, where she received her Ph.D. in social and developmental psychology. As a Research Consultant with Nickelodeon/MTV Networks Kids & Family Group, she investigates the influence and role of mass media in children’s lives. She has also worked with Sesame Workshop, Noggin, MediaKidz, and Scholastic.

**Apostolos Malatras** received the Diploma in Computer Science from the University of Piraeus, Greece, the MSc degree in Information Systems from the Athens University of Economics and Business, Greece, and the PhD degree in networking from the University of Surrey, UK. He is a Post-doctoral Fellow with the Pervasive and Artificial Intelligence research group, University of Fribourg, Switzerland. Prior to this position, he was a Senior Research Engineer with Thales Research and Technology, Berkshire, UK. He is the author and co-author of more than 25 research papers. His research interests focus on context awareness, network management, mobile ad hoc networks, service oriented architectures, wireless sensor networks, and communications middleware.

**Bart Schotten** works as an analyst / functional designer for Info Support, a Dutch IT company. In 2009 he earned his master’s degree in Information Science at Radboud University Nijmegen, specializing in information architecture, with a particular interest in modeling. For his master’s thesis he developed and tested the first working prototype of a game for the elicitation of basic process models.

**Béat Hirsbrunner** is full professor at the Department of Computer Science, and leader of the Pervasive and Artificial Intelligence (PAI) research group at the University of Fribourg (UNIFR). He has conducted research works on the topics of Context-aware Ubiquitous Computing, Human-Computer Interaction, and Multimodal Dialogue Management. He is currently responsible for teaching several courses of the Computer Science curriculum and in particular Distributed Systems and Ubiquitous Computing. He is author and co-author of more than 120 scientific publications.
Boris Reuderink, MSc, obtained his master degree in 2007, after spending time on different machine learning problems, including OCR of handwritten text on envelopes and the detection of laughter in audio-visual data. Brains and intelligence have always been his guiding interests. These interests can be combined his PhD position at the University of Twente, for which he focuses on making BCI function in real-world settings for healthy users. After expanding her computer science education with some subjects about neurophysiology, Danny Plass-Oude Bos did her internship at the University of Nijmegen in 2007, implementing physiological artifact detection in an online EEG-based BCI system. In 2008 she obtained her master title in Computer Science (Human-Computer Interaction specifically) on BrainBasher, looking into the user experience of using BCI for games. At the moment she is working as a PhD student at the University of Twente, still attempting to merge BCI with HCI by researching how BCI can be made a more intuitive means of interaction.

Bram van de Laar, MSc, obtained his Bachelor degree in Computer Science (2006) and Master degree in Human Media Interaction (2009). With a broad interest in technology, such as: 3D, games, video, networking, music, sounds, haptics, physical exertion and brain-computer interfacing in particular, Bram tries to create a synergy by exploiting different modalities. User experience and ‘added value’ play an important role in this philosophy. As a PhD student at the University of Twente Bram gets the opportunity to explore the possibilities in these areas.

Brian C. Nelson is an assistant professor of educational technology in the Graduate School of Education at Arizona State University. Dr. Nelson’s research focuses on the theory, design, and implementation of computer-based learning environments, focusing on immersive games. An instructional designer and learning theorist, he has published and presented extensively on the viability of educational virtual environments for situated inquiry learning and assessment. Dr. Nelson was the project designer on the River City project through two NSF-funded studies, and is a co-principal investigator on the NSF-funded SAVE Science study with Drs. Ketelhut and Schifter. He is also co-PI on the MacArthur Foundation “21st Century Assessment” project, investigating new models for assessment in digital media-based learning environments, and co-PI on the NSF study “Scaffolding Understanding through Redesigning Games for Education (SURGE), investigating the use of an online game to teach physics. Dr. Nelson earned his Ed.D. at Harvard University.

Brock R. Dubbels has worked since 1999 as a professional in education and instructional design. His specialties include reading comprehension and instruction and assessment. His current focus is on the role of embodied cognition connected with digital literacies, game design, and play. From these perspectives he designs face-to-face, virtual, and hybrid learning environments, exploring new technologies for assessment, delivering content, creating engagement with learners, and investigating ways people approach learning. He is currently a research associate at the Center for Cognitive Science at the University of Minnesota. He is also the founder and principal learning architect at www.vgalt.com.

Camela Babson is a graduate student at the University of North Carolina Wilmington (UNCW), enrolled in a graduate course titled Games, Simulations and Virtual Worlds offered in the Watson School of Education.
About the Contributors

**Catherine Schifter** is an associate professor in and chair of the Department of Curriculum, Instruction and Technology in Education in Temple University’s College of Education. She has over 25 years of experience in teaching higher education science or computers for future teachers and, after 10 years of researching implementation of computers into classrooms, she has a clear understanding of how technology can support learning at all levels. She has served as principal investigator on five contracts with the School District of Philadelphia to assess implementation of technology-related federal grants into elementary- and middle-school classrooms to support literacy and mathematics education. Her recent scholarship has focused on distance learning and teachers’ use of technology, the latter topic the subject of her current book, *Infusing Technology into the Classroom: Continuous Practice Improvement (2008)*. Professor Schifter received her PhD from the University of Pennsylvania.

**Daniel Kudenko** is a lecturer in Computer Science at the University of York, UK. His research areas are AI for interactive entertainment, machine learning (specifically reinforcement learning), user modeling, and multi-agent systems. In many of these areas he has collaborated with industrial partners in the entertainment and military sector, and has been involved in projects for Eidos, QinetiQ, as well as the Ministry of Defence. Dr. Kudenko has been heading a research group in York on AI for games and interactive entertainment, which works on topics ranging from interactive drama for entertainment and education to football commentary generation. Dr. Kudenko received a Ph.D. in machine learning in 1998 at Rutgers University, NJ. He has participated in several research projects at the University of York, Rutgers University, AT&T Laboratories, and the German Research Center for AI (DFKI) on various topics in artificial intelligence. Dr. Kudenko’s work has been published in more than 70 peer-reviewed papers. He has served on multiple program committees and has been chairing a number of workshops, as well as co-edited three Springer LNCS volumes.

**Daniela Romano**, PhD, is a lecturer in Computer Science at University of Sheffield and theme leader Virtual Reality within the Kroto Research Institute for Multidisciplinary Engineering Research, where she manages a team of researchers and the virtual laboratory lab. Virtual Reality research, is concerned with both the technology, which allows users to interact with a computer-simulated environment, the software for the seamless interface and the simulation most often 3D. As such my competences include 3D Graphics, Human-Computer Interaction (HCI), Cognitive Science, Software Engineering, Artificial Intelligence (AI) and Education. In particular she specialises in VR solutions for educational purposes, otherwise known as “Serious Games” and the simulation of complex environments using Agent Based Modelling. She has published over 60 articles in various areas related to the creation of believable virtual environments and serious games.

**David Birchfield** is an assistant professor in Arizona State University’s School of Arts, Media and Engineering where he leads the K-12 Embodied and Mediated Learning Group. In this role he directs research and outreach activities for a team of interdisciplinary collaborators that span eight academic departments and includes a national network of school and community partners. His research is focused on interactivity and experiential media design as applied to creative and educational spaces. This work incluf Fulvio Frapolli obtained his degree in Mathematics from the Swiss Federal Institute of Technology in Zurich (Switzerland) in 2004. Since 2005 he is working as Ph.D. student within the Pervasive and Artificial Intelligence research group at the University of Fribourg (Switzerland). His thesis is fo-
About the Contributors

Cused in providing an holistic board game development framework, which allows users to design and modify computer enhanced board games by means of a set of graphical tools that are supported by a well-defined conceptual model and a visual programming environment. His research interests are in the area of Human-Computer Interaction, Mixed-reality, Game Modeling, Games rules flexibility, Tabletop gaming, Tangible User Interaction. His activities also include teaching assistance for undergraduate and post-graduate courses.

David Gibson is research assistant professor of computer science at the College of Engineering and Mathematical Sciences at the University of Vermont and co-principal investigator on the National Science Foundation funded Global Challenge Award ITEST Project. He is also the creator and project director of simSchool (www.simschool.org), a classroom flight simulator for training teachers funded currently by the Fund for the Improvement of Postsecondary Education. His recent books Games and Simulations in Online Learning (2006) and Digital Simulations for Improving Education (2008), address the potential for games and simulation-based learning. Gibson has help lead technology-based research and development projects since the early 1980’s which have resulted in the development and deployment of electronic portfolios, online data gathering, analysis and representation software, and innovative e-learning platforms.

Deborah Fields is a doctoral candidate at UCLA in the division of Psychological Studies in Education. With extensive experience working in areas of informal education, Fields engages in research about learning across spaces, peer-to-peer learning & teaching, and play. These interests have guided her studies in virtual worlds, science, and math in both formal and informal contexts. Fields’ recent work has been published in the International Journal of Computer Supported Collaborative Learning, the International Journal of Science Education, and On Horizon. She has a forthcoming book chapter coming out in Constructing Identity in a Digital World published by Cambridge University Press.

Diane Jass Ketelhut is an assistant professor of science education at Temple University’s College of Education. Her research interests center on scientific inquiry, specifically looking at the effects of inquiry on science self-efficacy; using emerging technologies to deliver scientific inquiry curricula on student learning and engagement; professional development in scientific inquiry on helping teachers integrate scientific inquiry into their curricula; and different methods of assessing science and scientific inquiry. Her current federally-funded projects include “SAVE Science,” an innovative game-based system for evaluating learning in science for middle school years, “Science in the City,” a standards-based scientific inquiry after-school curriculum project for elementary and middle-school students, and e=mc², an alternative mid-career math and science middle school teacher education program. In her teaching, she provides students with scientific inquiry experiences, both technological and hands-on, meant to engage them and challenge them to confront their own preconceptions. She holds certification in secondary school science and was a science curriculum specialist and teacher (science and math) for grades 5-12 for 12 years. Diane received an Sc.B. in Bio-Medical Sciences from Brown University, an MEd in curriculum and instruction from the University of Virginia and her EdD in learning and teaching from Harvard University.
About the Contributors

**Don Heider** (dheider@luc.edu) is the founding Dean & a Professor at Loyola University Chicago’s School of Communication. Heider recently released edited volume *Living Virtually* explores politics, social behavior, journalism, and ethics in virtual worlds. Heider is a multiple Emmy-award winning producer and reporter who spent ten years in news before beginning a career in teaching.

**Elizabeth Folta** is a graduate student in Science Education at NC State University with a minor in Fisheries and Wildlife Science. Her research interests include educational gaming and technology in environmental education. Elizabeth plans finish her dissertation in early August 2010 and start her career as an Assistant Professor in Informal Biology Education at SUNY – College of Environmental Science and Forestry. She has worked in informal education for a number of years including a wildlife education center, National Parks, and National Wildlife Refuges.

**Fulvio Frapolli** obtained his degree in Mathematics from the Swiss Federal Institute of Technology in Zurich (Switzerland) in 2004. Since 2005 he is working as Ph.D. student within the Pervasive and Artificial Intelligence research group at the University of Fribourg (Switzerland). His thesis is focused in providing an holistic board game development framework, which allows users to design and modify computer enhanced board games by means of a set of graphical tools that are supported by a well-defined conceptual model and a visual programming environment. His research interests are in the area of Human-Computer Interaction, Mixed-reality, Game Modeling, Games rules flexibility, Tabletop gaming, Tangible User Interaction. His activities also include teaching assistance for undergraduate and post-graduate courses.

**Idit Harel Caperton** is a Founder and President of World Wide Workshop Foundation in NYC. A learning scientist, an educational technology innovator, and a social entrepreneur, Idit won numerous awards for her work, including the AERA 1992 Outstanding Book Award for *Children Designers*, the Computerworld-Smithsonian Award (1999), the Internet industry coveted Global Information Infrastructure Award (1999), and the 21st-Century Achievement Award on the MaMaMedia Peace Project from the Computerworld Honors Program (2002). Idit serves on the Advisory Boards of PBSKids, CUNY, ATLAS at CU Boulder, TIG, MEET, and Saybot LLC, as well as on Overseeing Visiting Committees at Harvard and MIT. She is known for her visionary work at the MIT Media Lab in the 80s and for founding MaMaMedia.com in the 90s, a pioneering kids Internet brand using technology for creative learning, innovation, and globalization through constructionist learning.

**J. Alison Bryant** is Chief Strategy Officer at Smarty Pants, a youth and family research and strategy firm. Prior to joining Smarty Pants, Dr. Bryant was Senior Research Director of Digital Research and Brand & Consumer Insights for the Nickelodeon/MTV Networks Kids & Family Group. She led Nick’s efforts to understand the digital lives of kids and families, conducting research on a variety of digital platforms (online, console and handheld gaming, interactive television, mobile). Her Ph.D. is from the Annenberg School of Communication at the University of Southern California and before joining Nickelodeon she was an assistant professor of Telecommunications at Indiana University. She has published and presented extensively on media, kids and families, including two edited books: The Children’s Television Community and Television and the American Family (2nd Ed). She is also associate editor for the Journal of Children & Media.
About the Contributors

Jordana Drell is the Director of Preschool Games in the Nickelodeon Kids and Family Games Group. Jordana is responsible for Nick Jr. games across all platforms including, NickJr.com, NickJrArcade.com, NickjrBoost.com, mobile, console and handheld. She produced the first game for preschoolers on the Wii, Diego Safari Rescue. Before joining Nickelodeon, Jordana was a Producer in the Interactive Group at Sesame Workshop where she produced numerous Flash games for Sesamestreet.com.

Jorge Arroyo-Palacios graduated from the Instituto Tecnológico de Ciudad Victoria (Mexico) with an honours BEng degree in Computer Systems in 2003. He awarded a scholarship from the Mexican Council of Science and Technology (CONACYT) to pursue a postgraduate degree, and in 2004 he joined the University of Sheffield. He received the MSc degree in Advanced Computer Science in 2005 with his thesis work on the creation and population of virtual urban environments. Currently he is completing his PhD in the field of affective computing and holds a research assistant position at the Computer Science Department of the University of Sheffield. His research interests include: bio-affective interfaces, video games, virtual reality and artificial intelligence.

Katharine Daniels is a graduate student at the University of North Carolina Wilmington (UNCW), enrolled in a graduate course titled Games, Simulations and Virtual Worlds offered in the Watson School of Education.

Kristin Searle is a dual-degree doctoral student in the teaching, learning, and curriculum program at the Graduate School of Education and the Department of Anthropology at the University of Pennsylvania. She has studied and worked in a number of formal and informal learning contexts, including the American Indian Teacher Training Program and the Upward Bound Bridge/Jumpstart program, both at the University of Utah. More recently, she has begun to explore the educational applications of virtual worlds, looking specifically at Whyville.net. Throughout her work, Kristin is interested in how identities are produced and negotiated in educational contexts and beyond.

Leonard A. Annetta is an associate professor of Science Education at North Carolina State University, Dr. Annetta’s research has focused on distance learning and the effect of instructional technology on science learning of teachers and students in rural and underserved populations. His research vigorously began to parlay the results of his dissertation into a pursuit of how synchronous interaction over the Web could propel distance learning in formal and informal settings. Understanding the popularity of online, multiuser video game play, Dr. Annetta began to use his past programming knowledge to build a virtual environment that became the platform for his current research agenda. Dr. Annetta has been awarded over $5 million in grants to support his work on distance learning and the use of Serious Educational Games as a vehicle for learning STEM content and STEM career awareness.

Maliang Zheng is a graduate student at the University of York in the Computer Science department. His research interests lie in the areas of machine learning and information extraction. Zheng joint the GIEDY (Game, Interactive, Entertainment and Drama at York) group and worked with Dr. Daniel Kudenko on mining the football match data to generate game commentary. He is currently a researcher of a leading software company, studying how to improve the customer satisfaction with the commercial products by including the data mining technology in analyzing the user behavior.
Mark McMahon is a Senior Lecturer and Program Director of Creative Industries and Contemporary Arts at Edith Cowan University where he also co-ordinates the Game Design & Culture and Digital Media courses. He has previously worked as a multimedia developer and instructional designer. His current research is in Serious Games, particularly the underlying psychology of learning and immersion as well as instructional design models to support Serious Game development.

Melissa Gresalfi is an assistant professor in learning sciences and cognitive science at Indiana University, and is the associate director of the Center for Research on Learning and Technology. Her work considers cognition and social context by examining student learning as a function of participation in activity settings. Following a situative perspective on learning, her work investigates how opportunities to learn are constructed in mathematics classrooms, and how, when, and why different students take up those opportunities. Her research has been funded by the MacArthur Foundation, the National Science Foundation, and the Spencer Foundation.

Meng-Tzu Cheng is an assistant professor in the Department of Biology at the National Changhua University in Taiwan. Her research interests have focused on creating and using video games and simulations as a teaching and learning tool that helps middle school students to learn the concepts of biology in a more fun and interesting way.

Michael Garrett is a Phd student currently studying at Edith Cowan University in Australia. His Phd studies focus on the application of three-dimensional gaming technologies within a problem-based learning framework for the purpose of providing training for real world scenarios. Michael has also conducted previous research in conjunction with the Royal Australian Navy to assess the viability of gaming technology for spatial awareness training with Collins class submarines.

Paul Cairns is a Senior Lecturer in Human Computer Interaction at the University of York. He is a Programme leader for the MSc in Human-Centred Interactive Technologies. His interests are in Human Computer Interaction generally but, with a background in mathematics, he is interested in statistical methods for understanding user behaviour and mathematical knowledge management. He has more recently developed an interest in understanding the positive experience of using interactive systems, in particular, understanding what it means to be immersed in videogames. Dr. Cairns is also very interested in research methods and with Anna Cox wrote: Cairns, P. and Cox, A.L. (2008) Research Methods for Human-Computer Interaction Cambridge University Press.

Peter J.F. Lucas is an associate professor with the Institute for Computing and Information Sciences at Radboud University Nijmegen, the Netherlands. He has been involved in research in Artificial Intelligence, in particular knowledge-based systems, since the beginning of the 1980s. He has contributed to this area by theoretical as well as applied research, the latter for the major part focusing on the field of medicine. His research interests include topics such as applied logic and theorem proving, knowledge representation, decision-support systems, model-based diagnosis, and Bayesian networks. He has extensively published in AI journals and conferences (more than 100 journal and conference publications), written and edited several books, organised a number of workshops in the field, and edited 6 thematic issues of journals on topics mentioned above.
Rania Hodhod is a Ph.D. student and a member of the Artificial Intelligence Research Group in the Computer Science Department at the University of York, with Departmental Overseas Research Studentship (DORS). Her aim is to create an adaptive educational interactive narrative drama by integrating intelligent tutoring systems main components to the interactive narrative environments. Rania got her Masters degree in computer and information sciences from Ain Shams University, Egypt. She also obtained a diploma on Tutoring in on-line learning environment from the E-Learning lab, Aalborg University, Denmark. Her research interests include e-learning, intelligent tutoring systems, educational games and user modeling. Within these areas, Rania has several publications in international conferences that have gained general interest. Rania was also responsible of developing and designing an online course in computer science during her participation in the European funded project, The Mediterranean Virtual University.

Robin Brooks is a graduate student at the University of North Carolina Wilmington (UNCW), enrolled in a graduate course titled Games, Simulations and Virtual Worlds offered in the Watson School of Education.

Sasha Barab is a professor in learning sciences, instructional systems technology and cognitive science at Indiana University. He holds the Barbara Jacobs Chair of Education and Technology, and is the Director of the Center for Research on Learning and Technology. He has received multiple grants from the National Science Foundation and the MacArthur Foundation. His research has resulted in dozens of peer-reviewed articles, chapters in edited books, and he is editor of the book *Designing for Virtual Communities in the Service of Learning*. He has also given plenary talks worldwide, and testified before Congress on the potential of advanced technologies to impact learning. His current work involves the design of rich learning environments, frequently with the aid of technology, that are created to assist children in developing their sense of purpose as individuals, as members of their communities, and as knowledgeable citizens of the world. This work is being used by tens of thousands of children worldwide.

Shawn Y. Holmes is a former high school biology teacher and an Assistant Professor in science education at North Carolina State University in the Department of Mathematics, Science, and Technology Education. Her area of research is in science teacher education, specifically helping science educators gain cultural competency through recognizing and implementing ethical actions. She uses computer simulations to influence perspective-taking skills of educators in various scenarios involving students in school environments.

Shiang-Kwei Wang (Ph.D. University of Georgia) is an Associate Professor of the Master of Science in Instructional Technology Program in the School of Education at the New York Institute of Technology. Her professional interests have been in the areas of technology integration in K-12 learning settings, the motivational impact of information and communication technologies (ICTs) on learning attitude and performance, as well as the design and development of interactive learning tools. She can be reached at skwang@nyit.edu. Her web site address is http://iris.nyit.edu/~skwang.
Stephen Guynup has been considered one of the most creative and controversial designers of online virtual worlds for the past 15 years. His past efforts include numerous conference presentations, including SIGGRAPH 1998, 1999, 2000, 2003, 2004, 2009 and will Chair the Web3D Art Gallery at SIGGRAPH 2010. He currently teaches Game Design for the Art Institute of Pittsburgh - Online Division.

Stijn J.B.A. Hoppenbrouwers is an assistant professor at the Institute for Computing and Information Sciences at Radboud University Nijmegen. In his research he focuses on the process of modeling in system development and knowledge engineering. Stijn has been involved in applied systems modeling research since the mid nineties, and took part in a number of academic and industrial projects, including the ArchiMate project. He has published well over 50 reviewed articles and chapters in conferences proceedings, books and journals, and has organized and chaired some international workshops and conferences. He is also an active member of the IFIP 8.1 workgroup. His primary topics of interest include information systems, information modeling, rule-based modeling, enterprise architecture modeling, method engineering, conceptualization, elicitation, and collaborative modeling.

Tyler Dodge is a doctoral candidate in the Department of Instructional Systems Technology at Indiana University. His current work reflects his enduring commitment to educating children and young adults. It involves the research and development of traditional and modern narrative media to empower youth and advance design knowledge. He has co-authored several articles and book chapters, presented at conferences and workshops, and taught at the high school and college levels. His dissertation research concerns the effects of media design on observational learning from characters.

William Ion is a Professor in the Department of Design, Manufacture and Engineering Management at the University of Strathclyde. He graduated from the University of Glasgow with an Honors degree in Mechanical Engineering. Prior to appointment at the University of Strathclyde in 1985 he spent periods with Barr and Stroud Ltd and Yarrow Shipbuilders Ltd. He has been an investigator on research projects in the areas of design tools and techniques and computer supported working in design, design education and rapid prototyping, and is Operations Director of the newly created Advanced Forming Research Centre (AFRC).

Yasmin B. Kafai is Professor of Learning Sciences at the Graduate School of Education at the University of Pennsylvania and co-executive editor of the Journal of the Learning Sciences. Her research focuses on the design and study of new learning and gaming technologies in schools, community programs and virtual worlds. Recent collaborations with MIT researchers have resulted in the development of Scratch, a media-rich programming environment for designers of all ages, to create and share games, art, and stories. Current projects examine creativity and IT in the design of computational textiles with urban youth. Kafai earned a doctorate from Harvard University while working at the MIT Media Lab.