About the Contributors

**Kimberely Fletcher Nettleton** has taught at both the middle and elementary school level and loved every minute in the classroom. She was a principal at a K-8 school before becoming an instructor at Morehead State University, where she teaches Classroom Management and Assessment. She is a firm believer in the healing power of chocolate. She is the Coordinator of the Professional Development School at Morehead. She received her BA from the University of Kentucky, an MA in elementary education from Georgetown College, an MA in School Administration from Morehead State University, and an Ed D. from the University of Kentucky.

**Lesia Lennex** received her Doctorate in Curriculum and Instruction from the University of Tennessee, Knoxville. She is currently a Professor of Education in the department of Middle Grades and Secondary Education at Morehead State University, Morehead, Kentucky. Dr. Lennex holds degrees in Biology, Anthropology, and Curriculum and Instruction. She researches, presents, and publishes in technology issues and integration for P-16 schools, NCATE online exhibit rooms, biology curriculum, and ethnobotany. Dr. Lennex is the Chair of Information Technology Education SIG for the Society for Information Technology and Teacher Education (SITE), 2008-2014, and an Adron Doran Fellow investigating 3D in P-20 schools, 2009-2010. Dr. Lennex is a former high school teacher of biology, chemistry, physics, and ecology.

***

**Olusola O. Adesope** is an Assistant Professor of Educational Psychology at Washington State University, Pullman. His research is at the intersection of educational psychology, learning sciences, and instructional design and technology. His recent research focuses on the cognitive and pedagogical underpinnings of learning with computer-based multimedia resources, knowledge representation through interactive concept maps, meta-analysis of empirical research, and investigation of
instructional principles and assessments in STEM. Dr. Adesope holds a Ph.D. in Educational Psychology and M.Sc. in Educational Technology from Simon Fraser University, Canada.

Xin Bai earned her Doctorate in Instructional Technology and Media from Teachers College at Columbia University. She is currently an Assistant Professor at City University of New York. Xin’s research focuses on educational games and other e-learning technologies. More specifically, she studies how to develop a learning environment using animated agents in a virtual world that has transparency in both the agents and the virtual world. Her research is also built on the work done on Intelligent Tutoring Systems (ITS) using the knowledge representations to depict what the agents know about their virtual world and what the agents need to learn to solve domain specific problems.

Ian Barba is a Research and Development Librarian in the Library Technology Management and Services (LTMS) department of Texas Tech University Libraries. Since joining the Texas Tech University Libraries in 2009, his research has focused on existing and new library technologies and practices—particularly how they might enhance information literacy, teaching, and learning. He is also studying Computer Science, through classes at Texas Tech University, and through independent study, with an interest in using these skills to enhance library tools and services. He hopes to help build a library that can seamlessly serve the Texas Tech community, whether they are in the building or connecting online across a great distance. He received his B.A. in English Literature and Language from Texas Tech University in 2004, and his M.S. in Library Science from University of North Texas in 2008.

Amanda Bickerstaff is currently a PhD student at the City University of New York (CUNY) Graduate Center studying Urban Education Policy. She has dedicated her career to education, which began as a NYC Teaching Fellow in the Bronx, where she taught high school biology. Since then she has worked as a curriculum writer/editor, an after school program evaluator, education researcher, program associate for GEAR UP, project manager at U.S. Satellite Laboratory, and an Adjunct Professor at Hunter College. Currently, she works for the Woodrow Wilson National Fellowship Foundation in research and development for an innovative, competency-based STEM teacher preparation Masters program.

Nancye Blair, award-winning educator and International Society for Technology in Education (ISTE) Emerging Leader, was the visionary and project developer for the world’s first stereoscopic 3D document camera implementation. As a technology and gifted specialist, educational consultant, international speaker, and author,
About the Contributors

Blair’s passionate, dignity-driven messages about progressive 21st century educational pedagogy inform and inspire educators around the world to create learning environments that empower and enable students to reach their fullest potential. Her blogs and resources can be found at www.engagingeducation.net and www.indeptheducation.com.

Emily Bodenlos, from Springboro, Ohio, is currently a sophomore in Elementary Education. She is an Honors program member, receiving the Honors scholarship. She is currently conducting research in 3D in P-12 schools. Ms. Bodenlos is accepted for presentation to an international conference, the International Society for Technology Education (ISTE) in June, 2012. She is in progress on a chapter for 3D Cases in the P-12 Schools. She is an Undergraduate Research Fellow 2011-2012 with Dr. Lesia Lennex.

James Brewer has 15 years of programming and database administrator experience in private industry (cellular, software, and gaming industries), and he has worked 14 years as a professional librarian (serials, system administration). He has a background in mathematics, German, and Russian. Currently he is an Associate Librarian in the Research and Development Team of the Library Technology Management and Services Department at Texas Tech University (TTU) Libraries. He set up the first 3D Animation Lab at TTU Libraries, and he has taught courses in 3D technology. Professional interests include Big Data, Cloud Computing, and 3D. He follows emerging technologies and their relevance to the “Library of the Future.”

Jody Clarke-Midura is a Researcher at the Harvard Graduate School of Education, where she leads the Virtual Assessment Research Group. Her scholarship focuses on research, evaluation, and design of digital media for learning and assessment. She has spent the past ten years conducting research with schools around engaging students in STEM education. She holds a Master’s degree and Doctorate from the Harvard Graduate School of Education.

Rebecca M. Combs, Ph.D., attended the University of Kentucky, where she obtained her Masters and Doctorate in Instructional Design. Upon completion of her Ph.D., she accepted a position with Humana Inc. in the Clinical Learning and Development Department. She has been in her role for four years now as an Instructional Designer and focuses on the clinicians, specialists, and physicians in Humana’s Medicare sect of the business. She designs trainings for Humana associates across the nation on topics ranging from systems and communication skills to
role specific processes. Dr. Combs is an advocate for blended learning solutions and through her efforts has helped save the company money by developing virtual trainings, and in doing so, has brought new learning technologies to Humana.

Adriana D’Alba’s research interests include development and evaluation of online and on-site environments for learning, multimedia applications for education, instructional design and assessment of virtual environments, distant education, and 3-dimensional virtual museums. Dr. D’Alba is originally from Mexico. She has a Master’s Degree in 2D/3D Motion Graphics from the University of Glasgow in Scotland and a Certification in Museum Education from the University of North Texas.

Michael C. Duff is a Freelance Media Producer and Owner of Discover Video Productions, a media production company based in Morgantown, West Virginia. He has 20 years of experience in media production, first in producing and directing televised courses and now in designing online courses and learning activities and providing technical support for the distance education program in special education at West Virginia University. He has made numerous presentations at national conferences on topics related to teaching with technology and distance education delivery. He also has offered professional development workshops for the university and other organizations to prepare faculty and graduate students for instructional responsibilities in online programs and to train production personnel for technical roles in delivery of distance and distributed education.

Amy Eguchi is an Associate Professor of Education at Bloomfield College in New Jersey, USA. She holds her M.A. in Child Development from Pacific Oaks College, Ed.M. in Education from Harvard Graduate School of Education, and Ph.D. in Education from the University of Cambridge, and has an extensive teaching experience in educational robotics both with students and teachers in K-12 setting. She also teaches educational robotics to undergraduates. In addition, she runs a competitive robotics after school team at The School at Columbia University. She has been involved in RoboCupJunior, an educational robotics competition, since 2000, as the technical committee and organizing committee members, as well as the co-chair and general chair, in international, national, and local levels. In addition, she is a member of the RoboCup Federation Board of Trustees. In addition, she has been involved in several international collaboration educational robotics projects including the CoSpace educational robotics projects with the Advanced Robotics and Intelligent Control Centre (ARICC) at Singapore Polytechnic, Singapore, and RoboCupJunior initiative in Bangladesh.
About the Contributors

Eugenia Garduño is a Doctoral candidate at the Harvard Graduate School of Education. Before pursuing graduate studies, she worked in Mexico, primarily in the field of higher education, at the ministry of education and in a public university. She was also a member of a team that coordinated the design of a distance education program for Mexico, and more recently collaborated with several professors from the Harvard Graduate School of Education in evaluating a national program aimed at introducing a digitized curriculum for 5th and 6th graders. She is currently working on adapting the River City curriculum for the Mexican context.

Melissa D. Hartley, Ph.D., is a Teaching Assistant Professor in the Department of Special Education at West Virginia University. She currently incorporates simulations in virtual realities into her teacher preparation courses at both the undergraduate and graduate levels. Her current interests include investigating how pre-service and practicing teachers can improve skills in collaboration and the use of evidence-based practices through virtual simulations. She is also interested in the level of skill acquisition, refinement, and maintenance compared with method of practice and delivery.

Gregg Jones’s primary research interest is in using technology to further the creation and distribution of knowledge and learning. His research focuses on the combination of visualization systems, virtual communities, telementoring, games, simulations, and 3D online learning environments for teaching and learning. These emerging technologies support learning by distributing interaction and feedback across time and space via interactive forms of multimedia. Teaching and learning relationships are no longer confined by space, but are defined by connectivity.

Joanne Lavin, RN, EdD, Board Certified Clinical Specialist in Psychiatric Mental Health Nursing, is currently the Director Nursing Programs at York College, CUNY. Professor Lavin taught in Associate Degree Nursing for 25 years at Kingsborough Community College and was Chairperson for the last three years. Professor Lavin has been a Test Consultant with the National League for Nursing for 15 years. Professor Lavin is on the QCC Nursing Advisory Board and CUNY SPS RN to BS program. Recent publications include: “Surviving Post Traumatic Stress Disorder (PTSD)” (Nursing, 2010) and “A New Approach to an Old Disease: Innovative Strategies in the Management of Sickle Cell Disease” (Nursing Made Incredibly Easy, Nov-Dec 2010). Professor Lavin has received two grants from CUNY Dean for Health Professions for collaborative initiatives with Queensborough Community College and York College’s Physician Assistant Program. Professor Lavin is currently a co-PI on a CUNY Workforce Development Initiative to foster interdisciplinary collaboration through the use of 3D simulations.
Lilly Lu is an Assistant Professor of Art Education at Northern Illinois University in USA. With a background in Instructional Technology, her research/specialty areas include digital visual culture, virtual world pedagogy, gaming, and new media/technology integration in teacher education. She managed several research grants including the one awarded from the National Art Education Association in USA for her project Art Café@Second Life. In 2011, she received a university venture grant for the project Engaging Student Learning through Highly Interactive Virtual Environments (HIVEs) in the 21st Century. In this project, she has been working with art teachers to implement 3D virtual worlds and game design in K-12 school settings. Her latest publication is “Art Education Avatars in Action: Preparing Art Teachers for Learning and Teaching in a Virtual Age” in the *Journal of Technology and Teacher Education* in 2011.

Barbara L. Ludlow, Ed.D., is Professor and Chair of the Department of Special Education at West Virginia University. She is a leading authority on rural special education and on technology-based delivery of teacher education programs. She has authored multiple publications and made numerous presentations at national conferences on developing and delivering online courses and learning experiences. She has co-edited two professional reference books on distance education; the first on television delivery and the second on online instruction. She is currently co-editing a third book on online instruction in real time and virtual reality applications to prepare special educators in rural areas.

Meghan E. Marrero is an Associate Professor of Secondary Science Education at Mercy College in Dobbs Ferry, New York. Working primarily with pre-service teachers, Meghan seeks to improve their pedagogical content knowledge in the STEM disciplines by helping future teachers to relate theory to practice. Prior to this position, Meghan has worked as both a high school science teacher in New York City and as Director of Curriculum at U.S. Satellite Laboratory, Inc. She recently co-authored a STEM-based high school marine science textbook and her research interests include marine education, STEM professional development, and environmental literacy. Meghan is currently the President of the New York State Marine Education Association and serves on the Board of Directors of the National Marine Educators Association.

Toshiki Matsuda graduated from Tokyo Institute of Technology (T.I.T.) and took the degree of Ph.D. from T.I.T. He is an Associate Professor at the Graduate School of Decision Science and Technology at T.I.T. From 1996 to 1998, he was a Curriculum Specialist of Ministry of Education, Culture, Sports, Science, and Tech-
About the Contributors

Hiroshi Nakayama graduated from Tokyo Denki University (TDU) and took the degree of M.Eng. from Utah State University and his Ph.D. from Tokyo Institute of Technology. He is an Associate Professor at the School of Science and Engineering at TDU. His primary interest is in developing Web application systems and e-learning instructional materials, such as a decision-making support system for classroom lessons, a groupware aimed at the information exchange among teachers, parents, and guardians, and e-learning material for nutrition education. He is currently a member of the Japan Society for Educational Technology (JSET), the Japanese Society for Information and Systems in Education (JSiSE), and the Japan Society of Health Sciences (JSHS).

Noah L. Schroeder is a graduate student in Educational Psychology at Washington State University. His research interests include pedagogical agents, multimedia learning, and multimedia learning environments. He earned his M.A. in Educational Psychology from Washington State University and a B.S. in Biology from Colorado State University – Pueblo.

Glen Schuster, in 1991, founded U.S. Satellite Laboratory. Since then, his work as a Scientist Educator and Principal Investigator for NASA, NOAA, and NSF projects has pioneered the integration of remote sensing and instructional technology assets and tools into core curriculum materials through his work on projects including Weather Data Learning Center (WDLC), Project 3D-VIEW, and Signals of Spring. Most recently, he co-authored STEM-based high school marine science textbook. A leader in STEM professional development, Glen is the Project Director for NASA’s Endeavor Science Teaching Certificate Project. His work has taken him to places such as Greenland, Alaska Native Villages, and aboard a research ship.

Stefan Scott is a Secondary Teacher in Saskatoon, Saskatchewan, who specializes in photography and digital media instruction. He studied Computer Science, Photography, and Education while at the University of Saskatchewan. In 2011, he found a particular interest in stereoscopic photography and video production, and
has since worked to incorporate these topics into his teaching. Considering increasingly accessible technology and the cross-curricular relationship with physics and biology, he sees stereoscopic imaging as an effective and interesting medium with which to engage students in creative expression.

Jiayao Shen is a Senior Lecturer in the School of Electrical and Electronic Engineering at Singapore Polytechnic. She received her M.Sc. in Control Systems from the University of Sheffield in UK. She has been a Principal Investigator of CoSpace Educational Robotics program in the Advanced Robotics and Intelligent Control Centre (ARICC) since 2009. She served as Co-Chair of Local Organizing Committee of RoboCupJunior in 2010. She is a member of RoboCupJunior CoSpace Technical Committee. Her research interests include CoSpace educational robotics and control systems.

Karla Spencer has a BA from Morehead State University in Art, emphasis in Graphic Design, with a minor in Spanish. She plans to pursue a career in Graphic Design along with Mission work. As an Undergraduate Research Fellow (Spring 2011), Ms. Spencer conducted extensive research about 3D technologies and their use in schools. With this fellowship, she has been able to utilize her understanding of design programs, such as the Adobe Creative Suite, to manipulate stereoscopic images and videos. Ms. Spencer has presented her work to the MSU Celebration of Student Scholarship.

Brenda Swinford is a Research and Development Librarian in the Library Technology Management and Services (LTMS) Department of Texas Tech University Libraries. Her research interests include the impact of emerging technologies on teaching, learning, and academic research—with a focus on using technology to engage learners. She has been at Texas Tech since 2007, serving initially as a curriculum editor and online course designer at TTU’s University College before moving to the library. Her previous professional experience was in the K-12 world, where she served as an elementary teacher and a school librarian.

Kazue Tamada graduated from Hiroshima University and took the degree of Ph.D. from Tokyo Institute of Technology. She is a Professor at the College of Media and Communication at Edogawa University. Cyber ethics education was the main topic of her doctoral thesis. She currently conducts studies on teacher education to promote cyber ethics education in primary and secondary schools. Selected on the basis of her studies, since 2008 she has participated in many committees and working groups established for discussing topics concerned with cyber ethics and
About the Contributors

cyber safety in the Ministry of Economy, Trade, and Industry, and National Police Agency. She is currently a board member of Japan Association of Simulation and Gaming (JASAG).

Jay Wilson is an Assistant Professor in the Department of Curriculum Studies at the University of Saskatchewan. He has extensive practical experience in the areas of technology and instruction, multimedia development, program evaluation, and professional development. His program of research centers on open authentic learning, studying the social impacts of technology, and technology skill development in educators. His current research includes investigating ways of using technology to support and enhance the literacy levels and retention rates of First Nations high school students. He is also the leader of a pilot project looking at ways to improve technology literacy in English as an Additional Language for students in high schools.