About the Contributors

**Rocci Luppicini**, PhD, is a replacement professor in the Department of Communication at the University of Ottawa in Canada. He has published in a number of areas including virtual learning communities and practice (*Quarterly Review Of Distance Education*), research methodology on online instruction (*Journal of Distance Education*), issues in higher education, instructional design (*Canadian Journal of Learning and Technology*), and design research (*International Journal of Technology and Design Education*). His most recent book is an edited volume entitled *Online Learning Communities in Education* (Information Age Publishing, 2007).

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**Elisabeth Andre** is a full professor of computer science at Augsburg University, Germany, and chair of the Laboratory for Multimedia Concepts and their Applications. Prior to that, she worked as a principal researcher at DFKI GmbH where she has been leading various academic and industrial projects in the area of intelligent user interfaces. Her current research interests include embodied conversational agents, affective computing, intelligent multimedia interfaces, and the integration of vision and natural language. André has been involved in several European projects on educational environments with embodied conversational agents such as E-Circus (Education through Characters with emotional-Intelligence and Role-playing Capabilities that Understand Social interaction).

**Niels Ole Bernsen** is professor and director of the Natural Interactive Systems Laboratory (NISLab), University of Southern Denmark. He has done research in 28 international research projects on human-computer interaction, spoken dialogue systems, embodied conversational agents, multimodal interfaces, data annotation tools, virtual communities, and collaborative computing. He coordinated the European Network for Intelligent Information Interfaces (i3net) and held/holds board positions in the International Human Frontier Science Program, the European Language and Speech network ELSNET, and the European SIMILAR Network. His work on instructional systems includes a Danish pronunciation trainer and a system for conversation with fairy-tale author Hans Christian Andersen.

**Shelley H. Billig** ([www.rmcdenver.com](http://www.rmcdenver.com)) is vice president of RMC Research Corporation. She serves as principal investigator for multiple national, regional, and state studies, focusing on educational reform and improving the achievement of low-income children and youth. Dr. Billig has authored or co-edited 12 books and over 50 book chapters and journal articles.
Gary McIntyre Boyd was born in Toronto, educated there and in St. Thomas, Port Perry, Ottawa, Saskatoon, Vancouver, and Victoria (BSc, Carleton, 1957; MSc, Saskatchewan, 1962; PhD, UBC, 1967). He is professor of education, Department of Educational Technology, at Concordia University where he has taught since 1968. His abiding interest in open and distance learning started with the production of some instructional TV programs in 1969 and since the mid seventies has concentrated on systemically better ways to use computer software and mediated communication to support learning conversations. For more information, visit http://alcor.concordia.ca/~boydg/drboyd.html.

Jason Caudill has a bachelor’s degree in business administration and an MBA and is in the process of completing his PhD in instructional technology at the University of Tennessee. Caudill has been working in the field of information technology for more than 5 years and teaching online in both synchronous and asynchronous environments for more than 3 years. Caudill’s primary research interests are in technical management and online education and he sees mobile technology as being the next major step in the expansion of online learning environments.

Marcus D. Childress is professor and chair of the Instructional Design and Technology Department, The Teachers College, Emporia State University where he directs an online Master of Science program in instructional design and technology. Dr. Childress teaches courses in instructional design and technology, multimedia design, and distance learning. Research interests include individual differences and distance/online learning, sense of classroom community, massively multiplayer online role-playing games, and using instructional design and technology as a catalyst for school reform. A 1995 PhD graduate from Virginia Tech, Dr. Childress regularly presents at national and international conferences.

Guadalupe de la Cruz is coordinator of educational projects at “Tocalli-Educación, tarea de Todos” cooperative in Mexico where she manages activities related to the use of media in the classroom, within the framework of development programmes in marginal areas. She also currently holds a post as researcher at the Instituto Latinoamericano de Comunicación Educativa, an international organization with headquarters in Mexico, and has collaborated in communication projects in the press, radio, and television. Her first degree was in communication and journalism (Universidad Nacional Autónoma de Mexico) followed by a master’s degree in communication and educational technology at the Instituto Latinoamericano de la Comunicación Educativa. Her postgraduate qualifications include international communication, educational research, and media. Her professional career has throughout involved a focus on online environments, television and radio in education, and she has worked as presenter, interviewer, course designer, tutor, researcher, evaluator, and project manager in these fields.

Vanessa P. Dennen is an assistant professor of instructional systems in the Department of Educational Psychology and Learning Systems at Florida State University. She earned a PhD in instructional systems technology at Indiana University and previously was on the faculty at San Diego State University. Her research focuses on online discourse, cognitive apprenticeship, and online communities of practice.

Thomas M. Duffy is the Barbara Jacobs professor of education and technology at Indiana University (Bloomington). He is a professor in learning and developmental sciences and in cognitvescience. His research focuses on the design of inquiry learning environments and the study of learning in those environments. In evaluating designs, there is a particular focus on understanding the effective use of
technology and collaboration to scaffold learning. LTTS, an online teacher professional development environment, has been a primary vehicle for this design-based research. However, a variety of other design environments have been studied, including the Cisco Networking Academy educational model—which involves a mixture of centralized curriculum and assessment with local teaching, the introduction of inquiry models in online learning in eastern Europe, and military training for decision making.

Laila Dybkjær holds a PhD in computer science from Copenhagen University. During the past 16 years she has worked extensively on national and international projects. She has (co-authored) more than 200 publications. She has served as president of SIGdial, the ISCA, and ACL special interest group on discourse and dialogue and is on the editorial board for the *Journal of Spoken Dialogue Systems*. Her research interests include interactive spoken dialogue systems, natural interactive interfaces, usability design and evaluation, interaction model development, and corpus analysis.

Albert L. Ingram, PhD, is associate professor of instructional technology at Kent State University where he teaches a variety of courses in instructional design and technology, many of them entirely online. He received a PhD in educational technology from Arizona State University (1984). Dr. Ingram has taught at Governors State University and Kent State University and worked at a variety of other organizations including The American College, the Software Engineering Institute, and the University of Medicine and Dentistry of New Jersey. Dr. Ingram is co-author of *Exploring Current Issues in Educational Technology* with Drew Tiene and of *FrontPage 2002: An Introduction to Web Design for Educators and Trainers* with Ruth Watson. He has published papers in a variety of journals, including *Educational Technology*, the *Journal of Educational Technology Systems*, the *Journal of Educational Computing Research*, and *Performance and Instruction*. He has facilitated and participated in faculty learning communities on online learning and teaching, collaborative technologies, and others.

Ranulph Glanville studied architecture, followed by cybernetics (his PhD was examined by Heinz von Foerster, his supervisor was Gordon Pask) and then human learning (PhD examined by Gerard de Zeeuw, supervisor Laurie Thomas). He has published extensively in all three fields. He works as an independent academic and has taught in universities around the world. He currently holds a post at University College, London, and is visiting professor and senior research fellow at several universities in Australia. He was recently awarded a DSc (higher doctorate) in recognition of his outstanding, lifelong work in cybernetics and design. He lives on the South Coast of England with his Dutch physiotherapist wife. His hobby is whichever of his interests he is not currently doing.

Sheila Harri-Augstein (Sheila.Harri-Augstein@cshl.ac.uk) was research professor in human learning at Brunel University West London until 2001. A graduate in biology and physiology she was head of Sixth Form Science for several years before being awarded a PhD in human learning at Brunel. She also acted as advanced and scholarship level examiner for the Oxford and Cambridge exam board. As senior lecturer at Loughborough, she was responsible for introducing self-organised learning into the teacher training curriculum and she has written course units, monitored tutors, and acted as examiner for the Open University. At Brunel, in addition to her post graduate teaching duties, she procured research grants and lead SOL projects in education and in commercial organisations. Together with Laurie Thomas she is the founder of SOL and the learning conversation methodology and she is a chartered psychologist and associate fellow of the British Psychological Society. She has presented TV and radio
programmes and is sponsored by the British council, run workshops, and seminars in Europe, North America, and Australasia on SOL. Harri-Augstein is co-director of the Centre for the Study of Human Learning (CSHL) now based at Oxford. She is author and co-author of several books including *The Art and Science of Getting a Degree, Reading to Learn, Self-Organised-Learning, Learning Conversations,* and *Learning to Change.* Currently she runs master classes in SOL and supports SOL coaching at the International College of SOL based at Reading, UK.

Janet Holland worked 20 years as a public classroom teacher. Wanting something new, she sought out the challenge and is honoured to be teaching pre-service teachers and master’s degree students in instructional design and technology at Emporia State University. Dr. Holland also enjoys researching, writing, presenting, and generating new courses and instructional materials to improve the effectiveness, acquisition, and retention of new knowledge by students. She received a master’s degree in instructional design technology, 2002 from Emporia State University. She then completed a PhD in teaching and leadership, instructional design and technology, with a minor in communications at the University of Kansas (2006).

Li Jin received a bachelor’s degree in 1990 from the Department of Physics at Beijing Normal University. With strong interests and broad experiences in teaching and technology, she enrolled in the master’s program of instructional technology in Kent State University in Spring 2006. The study focuses on the application of instructional technologies, instructional design in technology mediated teaching environment, the assessment of teaching-learning in technology facilitated situation.

Nick Kearney is director of ICT/learning at Florida Centre de Formació, an education cooperative in Valencia, Spain for the last 10 years. He is responsible for the integration of learning technologies in education, across the range of teaching and learning contexts covered by the organisation (from primary through secondary and vocational, to university, post graduate, continuous, occupational learning, and learning in later life). He has also worked extensively as a teacher, a teacher trainer, and as an actor. He has a degree in English language and literature (UCL, London University) and post graduate diplomas in translation (Institute of Linguists), business management (ESADE Barcelona), TEFL (RSA), and professional studies in education (UK Open University). He also works for the European Commission as a project evaluator and reviewer, also in the field of learning technology (DG Information Society and Technology), and has published a range of papers and chapters on the subject of ICT-based learning. He has also coordinated a wide range of EU-financed research projects in the fields of online learning, digital literacy, collaborative learning, learner motivation, communities of practice, workplace learning, and informal learning.

Gulsun Kurubacak is an assistant professor in distance education at the College of Open Education at Anadolu University, Turkey. She undertook graduate studies at Anadolu University, Turkey (MA, educational technology) and the University of Cincinnati, USA (EdD, curriculum & instruction), and also has worked a post-doctoral fellow at the College of Education at New Mexico State University, USA (2001-2002). She spent the 20 years focusing on the democratic and multicultural aspects of distance education, finding new answers, viewpoints and explanations for complex communicational problems through critical pedagogy, and improving learner critical thinking skills through project-based online learning via online communications.
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**Kit H. Leung** is a recipient of the scholarship of FCAR in 2000 for her PhD study at McGill University. She is an educational technologist who specializes in online collaborative inquiry and a professional course and program developer who specialized in integrating CSCL approach into teaching and learning. Her current research interests include exploring the impacts of the use of artificial intelligence, and of the instructional system for virtual learning environment on learning to thinking, diagnostic cognitive assessment, as well as learning and teaching effectiveness.

**Tong Liu** (t.liu@massey.ac.nz) has degrees in engineering design from Sichuan University, China, an Honour’s degree in information science, and a master's degree in computer science, both from Massey University, Albany, New Zealand. Her current research interest is the design of online systems that better support human and social interactions, with e-mail being just one example. Others include online auctions, online learning systems, wikipedias and blogs, and online voting systems. Her goal is to help develop more socially aware software.

**Gregory MacKinnon** is a professor of science and technology education in the School of Education at Acadia University. His responsibilities include preparation of elementary and secondary science teachers for the public school system. He also coordinates and teaches in the technology education program. His primary research interests include integration of technology in higher education and constructivist classroom approaches. Acadia University is unique in that it was the first laptop university in Canada. Dr. MacKinnon has done action research in technology integration at Acadia for over 10 years. He most recently co-directed a $350,000 program-wide technology integration project in the Bachelor of Education entitled “Teaching in the Age of Technology.” This initiative, funded by The McConnell Family Foundation, involved reconstituting the BEd curriculum with progressive type II technology approaches.

**Jean Morrow** was a classroom teacher, high school principal, coach, athletic director, and musical director for school and community theatre. She taught in rural, inner city, and suburban schools. Dr. Morrow joined the faculty in The Teachers College at Emporia State University in 1989, teaching mathematics methods for elementary and middle school pre-service and in-service teachers, supervised student teachers, directed professional development schools in Olathe, then moved to the Department of Instructional Design and Technology. Dr. Morrow is chair of the Department of Early Childhood/Elementary Teacher Education. Her primary research interest is the effective teaching of mathematics and technology in elementary schools.

**F. F. Ng** is an associate professor in Department of Real Estate and Construction, The University of Hong Kong. He teaches information management and knowledge management in construction. He believes that learning and knowledge sharing are essential elements in both knowledge management and education; therefore he employs a collaborative learning approach in his courses. His research interests include business process engineering, organizational learning, knowledge mapping, and collaborative learning. He aims at integrating techniques and methodology of knowledge management in education, so as to enrich students’ competence in knowledge management.
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Paul Pangaro grew up interested in machinery but not machines, that is, purpose not embodiment. His explorations in various media (choir singing, acting, programming, filmmaking, computer graphics, cabaret, teaching, creating personal avatars) explore the intersection of intention and materiality. Pangaro was introduced to concepts of cybernetics while an undergraduate at MIT where he took courses from and worked on research projects with Jerome Y. Lettvin. On being hired by Nicolas Negroponte to join his Architecture Machine Group (predecessor to the MIT Media Lab), Pangaro was introduced to Gordon Pask by Negroponte. Pangaro left the MIT PhD program to write a dissertation with Pask at Brunel University in England (Ranulph Glanville was on his thesis committee). Pangaro met Stafford Beer and Humberto Maturana on a number of occasions (too few), had encounters with Herbert Brün (musical and otherwise) and was fortunate enough to live not far from Heinz and Mai von Foerster in their final years. Privileged to have extraordinary collaborators, he co-teaches cybernetics of design at Stanford University and is developing an approach to product design based on personal bio-cost. His work can be found at pangaro.com, cyberneticlifestyles.com, drwires.com, and cyberneticians.com.

Bernard Scott is head of the Flexible Learning Support Centre, Cranfield University, Defence Academy, Shrivenham. Previous appointments have been with the University of the Highlands and Islands Millennium Institute, De Montfort University, the Open University and Liverpool John Moores University. Scott’s research interests include theories of learning and teaching, course design and organisational change, and foundational issues in systems theory and cybernetics. He has published extensively on these topics. Dr. Scott is a fellow of the Cybernetics Society and is an associate fellow of the British Psychological Society.

Until her retirement in fall 2005, Lorraine Sherry, PhD, was a senior research associate with RMC Research Corporation. She directed or served on the evaluation teams for the national PT3 evaluation, three PT3 Catalyst Grants, two PT3 Implementation Grants, and three Technology Innovation Challenge Grants, as well as the Virtual Assistive Technology University, the Boulder Valley Internet Project, and the Annenberg/CPB Math and Science Project. She authored many book chapters, journal articles, and magazine articles on instructional technology. She developed new models for technology adoption and diffusion, teacher leadership in instructional technology, and the link between technology and student performance, and presented her research at many national conferences. She is currently associated with the University of Colorado at Denver and serves as external examiner for doctoral students at the University of Pretoria, South Africa. She is also very active as a course developer and facilitator at the VIVA! continuing education program at the University of Denver’s University College.

Melinda Sota is currently a PhD student in the instructional systems program at Florida State University. Her major research interests include the effect of language on student learning and problem solving and microanalysis of learner interactions through time.

Helga Stokes initially pursued her interest in educational change and innovation by researching the prevalence of innovative schools in Western Europe. While volunteering in community development in Ecuador, she became familiar with the use of horizontal communication. She then worked in a Montessori setting and in traditional public schools, and also gave volunteer support to democratic and project-based charter schools. In the research project discussed in her contribution to this handbook, she brought together her interests in stakeholder initiated school change and in genuinely participatory
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design and decision-making. Stokes holds a doctoral degree in instructional systems and comparative and international education from The Pennsylvania State University.

**Laurie Thomas** was the founder director of the Centre for the Study of Human learning (CSHL) and head of the post graduate division of Human Learning at Brunel University. A graduate in physics, engineering, and psychology, he was awarded a PhD by the University of London. Early in his career he worked as researcher at the Tavistock Institute, developing psycho-social-technical systems for government organisations, as production manager responsible for inspection and quality control at Elliott Brothers and as lecturer, researcher, and innovator in higher education and industrial psychology. He devised the original Focus, Pegasus, Socio-grid, Repertory Grid Suite of Programs as well as the Structures of Meaning, Personal Learning Contracts, Reading to Learn, and Feedback for Learning Suites of Programs. Together with Sheila he is the originator of SOL and the learning conversation methodology. He is the author of several hundred academic papers and several books including *The Control of Quality and SOL with the Repertory Grid: Eliciting Personal Models of the World*, as well as five books co-authored with Sheila. Underlying his approach to learning is a cybernetic view of man and a commitment to the development of the next generation of computer-aided Intelligent Learning Systems. He is a chartered psychologist, fellow of the British Psychological Society, Carl Rogers Memorial Professor, co-director of CSHL now at Oxford and non-exec.director of the International College of SOL.

**Alyssa Wise** is an assistant professor in educational technology at Simon Fraser University. Her research focuses on the design of technology supported environments for learning with a focus on bridging many of the current dichotic tensions in education. In her work, Alyssa explores the dynamic relationships between learning and doing (often referred to as the question of transfer), expert and peer based interactions, and global versus local concerns. In her recently completed dissertation work for the learning science program at Indiana University, Alyssa deeply explored the relationship between the explicit and tacit dimensions of knowing and how this relates to the tensions described above. This chapter is one of the many outcomes of that work.

**Brian Whitworth** completed his psychology master’s thesis on the implications of split-brain research. After being the New Zealand Army senior psychologist, he became a defense computer analyst, then worked in operational simulations. After “retiring” his doctorate on how online groups create agreement sparked an interest in the design and evaluation of “social-technical systems.” He has published in journals like *Small Group Research, Group Decision & Negotiation, THE DATABASE for Advances in IS, Communications of the AIS, IEEE Computer, Behavior and Information Technology (BIT)*, and *Communications of the ACM*. He is now at Massey University (Albany), New Zealand. For more information, visit http://brianwhitworth.com.

**Bob Zimmer** holds a doctorate in applied science and his interests encompass both the physical sciences of matter and energy and the systemic sciences of form and function. His work concentrates on making deep logical sense of situations, recognising that intelligent experimentation depends on clear theoretical understanding. He works at the Open University in the UK, an institution for distance learning, where he specializes in applying scientific ways of thinking to communication.