

## Personal Information

Current Position: Associate Professor  
Canada Research Chair in Education and Technology  
Ontario Institute for Studies in Education  
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## Education

*Postdoctoral Scholar*, University of California at Berkeley, Berkeley, California 1996-1998  
*Ph.D. in Psychology*, University of Pittsburgh, Pittsburgh, Pennsylvania, 1997  
Doctoral Committee: Micki Chi (advisor), Lauren Resnick, Kurt vanLehn, Alan Lesgold  
Thesis: Understanding constraint-based processes: A precursor to conceptual change in physics  
*Graduate Intern*, IBM Human Factors Department, Poughkeepsie, New York, 1990  
*M.S. in Psychology*, University of Massachusetts, Amherst, Massachusetts, 1989  
Masters Advisor: David Rosenbaum; Published thesis: *Optimal Movement Selection*  
*B.S. in Physics, High honors* Case Institute of Technology, Cleveland, Ohio, 1987  
Graduate level physics coursework through Masters level.

## Employment History

*Associate Professor of Education*, OISE/UT, University of Toronto, Canada 2005-present  
*Adjunct Associate Professor*, Graduate School of Education, UC Berkeley, CA 2003-2005  
*Professional Researcher, Lecturer*, Graduate School of Education, UC Berkeley, CA, 1998-2003  
*Postdoctoral Scholar*, University of California at Berkeley, Berkeley, CA, 1996-1998  
*Graduate Instructor*, University of Pittsburgh, Pittsburgh, Pennsylvania, 1993-1995  
*Graduate Researcher*, University of Pittsburgh, Pittsburgh, Pennsylvania, 1990-1995  
*Human Factors Intern*, IBM Corporation, Poughkeepsie, New York, 1989-1990  
*Graduate Researcher*, University of Massachusetts, Amherst, Massachusetts, 1987-1989  
*Physics Research Assistant*, Case Institute of Technology, Cleveland, Ohio, 1986-1987  
*Undergraduate Teaching Assistant*, Case Institute of Technology, Cleveland, Ohio, 1985-1987

## Awards

World Technology Award Winner (category of Education)	2006
NASA VDC “Most Usable Research Paper” (with Ingo Kollar and Frank Fischer)	2005
Best student paper, CSCL 2005 Proceedings (with Ingo Kollar and Frank Fischer)	2005
IBM Faculty Award for eLearning design.	2003
National Association for Interpretation 2002 Media Awards contest. First Place (with Andrea Strauss) "Interpretive Program Curriculum"	2002
Learning Software Design Award, University of Minnesota.	2001
Tim Post Award for outstanding psychology graduate student.	1995
IBM Leadership Award, Poughkeepsie, NY.	1989
Outstanding Physics Undergraduate, Case Institute of Technology.	1987
Valedictorian of graduating class, Regis Jesuit High School.	1983

## Teaching

Education:	<p><i>Technology for Teachers</i> – University of Toronto OISE/UT 5574H Fall, 2005, Winter, 2006, Fall, 2006, 2007, 2008</p> <p><i>Knowledge, Media and Learning</i> – University of Toronto KMDI 2003 Fall, 2006, 2007, 2008, 2010</p> <p>CTL 1926 Winter, 2010</p> <p><i>Technology, Curriculum and Instruction</i> – University of Toronto CTL 1999 Winter, 2006</p> <p><i>Technology for Elementary Educators</i> – University of California, Berkeley DTE 391 A Fall, 2003, Fall, 2004</p> <p><i>Integrating Technology in Elementary Instruction</i> – University of California, Berkeley. DTE 391 B Spring, 2004, 2005</p> <p><i>Technology, Curriculum and Instruction</i> - University of California, Berkeley. EDUC 295 Fall, 2002, 2003, 2004.</p> <p><i>Conceptual Change in Science Education</i> - University of California at Berkeley Fall, 1996, Fall, 2000 (Co-instructor).</p> <p><i>Inquiry and Technology in Secondary Science</i>- California State University, San Bernardino. Spring, 1999; Spring 2000 (Co-instructor, Jim Monaghan)</p> <p><i>Mars by 2012</i> - University of California at Berkeley, Interdisciplinary Studies Spring, 1998 (Co-Instructor, Larry Kuznetz),</p>
Psychology:	<p><i>Cognitive Psychology Research Methods</i> - University of Pittsburgh. (Instructor) Spring, 1993; Spring, 1994; Spring, 1995</p>
Physics:	<p>Quantum Mechanics; Numerical Methods; Classical Mechanics, Electricity and Magnetism (Teaching Assistant/Tutor) Case Institute of Technology, 1985 - 1987</p>

## Students and Post-docs chaired or co-chaired

### University of Toronto (in progress)

Stian Haklev (PhD student, 2010 – Present)  
Sarah Morrison (PhD student, 2009 – present)  
Arif Anwar, (PhD student, 2008 – present)  
Michelle Lui (PhD student, 2008 – present)  
Mike Tissenbaum (PhD student, 2008 – present)  
Mehdi Ravandi (MS Engineering student, co-supervised, 2007 – present)  
Rebecca Hughes (PhD student, 2007 – present)  
Gita Wassmer (PhD student, 2006 – present)  
Vanessa Peters (PhD student, 2006 - present)  
Cheryl Madeira (PhD student, 2006 - present)  
Naxin Zhao (PhD student, 2006 - present)  
Christy Conte, MA student, 2005 - present)

### University of Toronto (completed)

Daniel Zingarò (MEd, 2010).  
Tracey Wallace (MEd, 2009). *Masters Research Project: ICT-Based Knowledge Management and HIV/AIDS in South Africa: The Role of Civil Service Organizations*  
Arif Anwar (MA, 2008). *Thesis Title: Towards a Role Framework for Mobile Devices in Educational Contexts: A Meta-Ethnographic Approach*  
Christina Parker (MTE, 2008). *Masters Research Project: Who Am I? Children's Conceptualizations of Their Cultural Identity.*

### University of California, Berkeley (2000-2005)

Jacqueline Madhok (PhD, 2006). *Thesis: The longitudinal impact of an eighth grade inquiry science curriculum on students who are at risk for science learning: Interactions between epistemological beliefs and achievement in science.*  
Tom Azwell (MA, 2006). *Thesis: Extending research-based innovations to teachers at a distance: Scaffolding mentor and teacher practices in a technology support environment.*  
Tim Zimmerman (PhD, 2005). *Thesis: Promoting Knowledge Integration of Scientific Principles and Environmental Stewardship: Assessing an Issue-based Approach to Teaching Evolution and Marine Conservation.*  
Matthew Fishbach (MA, 2005). *Thesis: New technologies and user experiences: Adaptive feedback in game-like learning.*  
Carrie-Anna McCoy (MA, 2004). *Thesis: Scripting as a Collaborative Tool in Problem Solving.*  
Michele Spitulnik (Post-doctoral Researcher, 2001-2004). Research topics in professional development  
Jeffery Holmes (Post-doctoral Researcher, 2003 – 2005). Research topics in curriculum design, technology-enhanced learning environments.

## Funded Projects

- 2009 – 2010. Principal Investigator: A role for a technology community within a research field. Canada-California Strategic Innovation Partnership (CCSIP). SSHRC and University of Toronto funded Project #141678 [U.S. \$50,000].
- 2008 – 2012. Principal Investigator: Technology enhanced activities and interactions in the science classroom: pedagogical scripts for knowledge communities. SSHRC grant funded project 410-2008-2125 (CID/NIC 181093). [CAD \$123,000].
- 2008 – 2012. Co-Principal Investigator: Science Created by You. European Union FP7-ICT-2007-1 funded project 212814. [8.5 Million Euros, with no subaward permitted for non-EU countries. Slotta is a full partner in this large collaborative project, however.
- 2008 – 2013 Co-Principal Investigator: NSF funded project DRL-0733299 Logging Opportunities in Online Programs for Science (LOOPS): Student and Teacher Learning. [US \$2.5 Million, with US \$314,029 subaward to University of Toronto].
- 2007 – 2008 Co-Principal Investigator. University of Toronto Instructional Technology Courseware Development Fund (ITCDF) grant: A Casebook of Effective Information Technology Teaching and Learning Practices. [\$15,000]
- 2006 – 2009 Co-Principal Investigator: NSF funded project EEP 0550169. Developing Ontological Schema Training Methods to Help Students Develop Scientifically Accurate Mental Models of Engineering Concepts. [US \$750,000, with US \$178,211 subaward to University of Toronto].
- 2006 – 2011 Principal Investigator: CFI funded Canada Research Chair in Information Technology: Technology-Enhanced Collaboration and Inquiry for Science [CAD \$332,000]
- 2006 – 2008. Principal Investigator: Connaught Foundation funded project, *A school-based community for curriculum design and research partnership*. [CAD \$10,000]
- 2005 – 2010 Co-Principal Investigator: NSF funded project TPC 0455877 *Mentored and Online Development of Educational Leaders for Science (MODELS)*. [US \$2.4 Million].
- 2004 – 2006 Co-Principal Investigator: *NetCoIL: Scientific Network for Collaborative Inquiry Learning*. German DFG-funded project, [€19,600 for 2 years.] Thorsten Bell, PI.
- 2004 – 2006 Co-Principal: Department of Forestry Educational Development Award for developing two WISE forestry projects [\$14,000]. Theresa Heyer, PI.
- 2003 - 2008 Co-Principal Investigator: NSF funded project **CLT 03-34199** (Centers for Learning and Teaching): *The Educational Accelerator Center: Technology-Enhanced Learning in Science (TELS)* [\$10,000,000 for 5 years].
- 2003 - 2004. Principal Investigator: IBM Faculty Award. *Exploring the Potential of Open Source for E-learning* [\$36,000 for 1 year].
- 2003 - 2006 Co-Principal Investigator: NSF funded project REC 03-11835 (ROLE Quadrant IV) A Partnership Model for Integrating Technology, Curriculum, and Professional Development in Response to New Science Assessments [\$1,734,008] for three years.
- 2001 - 2002 Principal Investigator: Palm Educational Partnership Research Hub Award. *The WISE-Palm Research Partnership*. [\$149,500 in technology value, for 1 year research plan].

- 2001 - 2004 Co-Principal Investigator: NSF funded project REC 98-73180 *Accomplishment-Based Renewal for the Web-based Inquiry Science Environment*. [\$1,200,000].
- 1998 - 2002 Author, Director: NSF funded project REC 98-05420. *Supporting Teachers and Encouraging Lifelong Learning: A Web-Based Inquiry Science Environment (WISE)*. [\$1,187,265]. 1998-2001. Marcia C. Linn, PI.
- 1998 - 2002 Author, Co-director: NSF funded project REC 98-73160. *Science-Controversies: On-line Partnerships in Education (SCOPE)*. [\$1,840,000]. Marcia C. Linn, PI.

### Technology Design Experience

- SAIL Smart Space (S3)*. An open source “smart classroom in a box.” 2007
- ENCORE: Educational Network and Community for Open Resource Exchange* 2006  
community for open source development in the learning sciences
- SAIL: The Scalable Architecture for Interactive Learning* 2005  
An open source framework for interoperable learning technologies
- UC-WISE: University of California Web-based Instruction in Science and Engineering* 2001  
A technology enhanced learning environment for computer science
- WISE: The Web-based Integrated Science Environment* 1997  
An award winning curriculum and assessment system for secondary science classrooms
- KIE: The Knowledge Integration Environment* 1995 – 1997  
The first integrated Web-based environment that supported students in complex inquiry
- Programming Background: Pascal, C, LISP, EASEL, SmallTalk, HyperTalk, Visual Basic,*  
IBM Corporation: Lead Programmer in two interdepartmental projects 1989 - 1990

### Publications

#### Books

- Slotta, J. D. & Linn, M. C. (2009). *WISE Science: Inquiry and the Internet in the Science Classroom*. Teachers College Press.

#### Book Chapters

- Peters, V. L., & Slotta, J. D. (2010). Scaffolding knowledge communities in the classroom: New opportunities in the Web 2.0 era. In M. J. Jacobson & P. Reimann (Eds.), *Designs for learning environments of the future: International perspectives from the learning sciences* (pp. 205-232). Secaucus, NJ: Springer.
- Slotta, J. D. (2010). Evolving the classrooms of the future: The interplay of pedagogy, technology and community. In K. Mäkitalo-Siegl, F. Kaplan, J. Zottmann & F. Fischer (Eds.). *Classroom of the Future. Orchestrating collaborative spaces*. (215-242). Rotterdam: Sense.
- Krajcik, J., Slotta, J.D., McNeil, K. and Reiser, B. (2008). Designing Learning Environments to Support Students’ Integrated Understanding. In Y. Kali, M. C. Linn, & J. E. Roseman (Eds.), *Designing Coherent Science Education*. New York: Teachers College Press.

- Berge, O. and Slotta, J. (2006). "Learning Technology Standards and Inquiry-Based Learning." In: A. Koochang (Ed). Principles and Practices of the Effective Use of Learning Objects. Informing Science Press.
- Linn, M.C. and Slotta, J.D. (2006) When, why and how do students learn from each other? In: A. O'Donnell, J.L. van der Linden, & C.E. Hmelo (Eds.) Collaborative Learning, Reasoning, and Technology. 2001 Rutgers Invitational Series in Education, Lawrence Erlbaum.
- Clark, D. B., & Slotta, J. D. (2004). The Web-based Inquiry Science Environment (WISE): Research and design. In A. Kovalchick and K. Dawson (Eds.), Education And Technology: An Encyclopedia. Vol. 2., 630-637. ABC-CLIO: Denver Colorado.
- Slotta, J.D (2004). The Web-based Inquiry Science Environment (WISE): Scaffolding Knowledge Integration in the Science Classroom. In M.C. Linn, P. Bell and E. Davis (Eds). Internet Environments for Science Education. 203-232 . LEA.
- Niedderer, H., Sander, F., Goldberg, F., Otero, V., Jorde, D., Slotta, J., Strømme, A., Fischer, H. E., Hucke, L., Tiberghien, A., & Vince, J. (2003). Research about the use of information technology in science education. In D. Psillos et al (Eds.), Science Education Research in the Knowledge-Based Society, 309-321. Dordrecht: Kluwer Academic Publishers.
- Slotta, J. D. & Linn, M. C. (2000). The Knowledge Integration Environment: Helping students use the Internet Effectively. In Jacobson, M. J. & Kozma, R. (Ed.), Learning the Sciences of the 21st Century. 193-226. Hilldale, NJ: Lawrence Erlbaum & Associates.

#### **Peer reviewed Journal Articles**

- Slotta, J.D. and Aleahmad, T. (2009). WISE technology lessons: Moving from a local proprietary system to a global open source framework. Research and Practice in Technology Enhanced Learning. 4 (2) 169–189. World Scientific Publishing Company.
- Peterson, S. S. and Slotta, J. D. (2009). Saying Yes to Online Learning: A First-Time Experience Teaching an Online Graduate Course in Literacy Education. Literacy Research and Instruction, 48: 120–136. Routledge.
- Kollar, I., Fischer, F. & Slotta, J. D. (2007). Internal and external scripts in computer-supported collaborative learning. Learning & Instruction, 17(6), 708-721.
- Slotta, J. D. & Chi, M. T. H. (2006). The impact of ontology training on conceptual change: Helping students understand the challenging topics in science. *Cognition and Instruction* 24(2). 261-289. Lawrence Erlbaum Associates.
- Linn, M.C., Husic, F., Slotta, J.D., & Tinker, R. (2006). Technology Enhanced Learning in Science (TELS): Research Programs. Educational Technology, 46(3), 54-68.
- Cuthbert, A. & Slotta, J.D. (2004). Fostering lifelong learning skills on the World Wide Web: Critiquing, questioning and searching for evidence. *The International Journal of Science Education*, 27(7) 821-844.
- Kollar, I., Fischer, F., Slotta, J. D. & Meister, D. (2004). Missbildungen bei Fröschen: Parasiten oder chemische Substanzen? Online-Kontroversen in WISE. *Praxis der Naturwissenschaften - Biologie in der Schule*, 53(3), 38-39.
- Meister, D.M., Fischer, F., Kollar, I. & Slotta, J.D. (2004). Lehrer-Communities - Erfahrungen aus der web-basierten WISE-Lernumgebung. *Computer und Unterricht*, 54, 50-53.
- Linn, M. C., Clark, D. B., & Slotta, J. D. (2003). WISE Design for Knowledge Integration. *Science Education*, 87(4), 517-538.

- Slotta, J.D. (2002). Designing the Web-based Inquiry Science Environment. In S. Hooper (Ed). Educational Technology. 42(5), 15-20.
- Slotta, J.D. (2002). Partnerships in the Web-based Inquiry Science Environment (WISE). *Cognitive Studies*, 9(3) 351-361.
- Fischer, F. & Slotta, J. D. (2002). Online-Controversen in WISE. Wie das Internet genutzt werden kann, um naturwissenschaftliches Denken zugänglich zu machen. *Computer und Unterricht*, 11, 27-29.
- Reiner, M. Slotta, J. D., Chi, M. T. H. & Resnick, L. B. (2000). Naive physics reasoning: A commitment to substance-based conceptions. *Cognition and Instruction*, 18(1), 1-35.
- Linn, M.C. & Slotta, J.D. (2000) WISE Science. *Educational Leadership*, 52, 29-32. Association for Supervision and Curriculum Development. Alexandria, VA.
- Clark, D. B., & Slotta, J. D. (2000). Source credibility, source media, and students' interpretation of information on the Internet. *International Journal of Science Education*, 22 (8), 859-871.
- Linn, M. C., Shear, L., Bell, P., & Slotta, J. D. (1999). Organizing principles for science education partnerships: Case studies of students' learning about 'rats in space' and 'deformed frogs'. *Educational Technology Research and Development*, 47(2), 61-84.
- Slotta, J. D. & Chi, M. T. H., and Joram, E. (1995). Assessing students' misclassifications of physics concepts: An ontological basis for conceptual change. *Cognition and Instruction*. 13, (3), 373-400.
- Chi, M. T. H., Slotta, J. D. & deLeeuw, N. A. (1994). From things to processes: a theory of conceptual change for learning science concepts. Special issue on "Conceptual Change," *Learning and Instruction*, 4, 27-43.
- Chi, M. T. H. & Slotta, J. D. (1993). The ontological coherence of intuitive physics. Commentary on A. diSessa's "Toward an epistemology of physics." *Cognition and Instruction*, 10 (2,3), 249-260.
- Rosenbaum, D. A., Slotta, J. D. & Vaughan, J. & Plamondon, R. (1991). Optimal movement selection. *Psychological Science*, 2(2), 86-91. (Based on second author's master's thesis.)
- Rosenbaum, D. A., Marchak, F., Barnes, H. J., Vaughan, J., Slotta, J. D., & Jorgensen, M. (1990). Constraints for action selection: Overhand versus underhand grips. In M. Jeannerod (Ed.), *Attention and Performance XIII: Motor representation and control*. 321-342. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Rosenbaum, D. A., Barnes, H. J., & Slotta, J. D. (1988). In defense of the advance specification hypothesis for motor control. *Psychological Research*, 50, 58-62.
- Rosenbaum, D. A., Vaughan, J., Jorgensen, M. J., Slotta, J. D., & Barnes, H. J. (1988). One bad turn deserves another: A rule of thumb for hand rotations. *Five College Cognitive Science Paper 88-2*.

### **Peer-reviewed Proceedings**

- Slotta, J.D. & Linn. M.C. (2009). Designing effective collaborative inquiry: New technology frameworks. . Proceedings of the Eighth International Conference on Computer Supported Collaborative Learning – CSCL 2009: CSCL Practices. International Society of the Learning Sciences, Inc.

- Tissenbaum, M & Slotta, J.D. (2009). A new framework for smart classroom research: Co-designing curriculum, research and technology. Proceedings of the Eighth International Conference on Computer Supported Collaborative Learning – CSCL 2009: CSCL Practices. International Society of the Learning Sciences, Inc..
- Peters, V. L., & Slotta, J. D. (2009). Co-designing curricula to promote collaborative knowledge construction in secondary school science. Proceedings of the Eighth International Conference on Computer Supported Collaborative Learning – CSCL 2009: CSCL Practices. International Society of the Learning Sciences, Inc.
- Najafi, H., & Slotta, J. D. (2009). Sustaining collaborative knowledge construction in graduate-level education: Examining design issues. In C. O'Malley, D. Suthers, P. Reimann, A. Dimitracopoulou (Eds.), Computer Supported Collaborative Learning Practices: CSCL2009 Conference Proceedings (pp. 232-236). ISLS.
- Madeira, C., & Slotta, J. D. (2009). Designing On-line Communities to Enhance Teacher Professional Development. In C. O'Malley, D. Suthers, P. Reimann, A. Dimitracopoulou (Eds.), Computer Supported Collaborative Learning Practices: CSCL2009 Conference Proceedings (pp. 232-236). ISLS
- Slotta, J. D., & Peters, V. L. (2008). A blended model for knowledge communities: Embedding scaffolded inquiry. International Perspectives in the Learning Sciences: Creating a learning world. Proceedings of the Eighth International Conference for the Learning Sciences – ICLS 2008 (pp. 343-350). International Society of the Learning Sciences, Inc.
- Peters, V. L., & Slotta, J. D. (2008). Building wiki-based pedagogical scripts for knowledge communities. International Perspectives in the Learning Sciences: Creating a learning world. Proceedings of the Eighth International Conference for the Learning Sciences – ICLS 2008 (pp. 237-244). International Society of the Learning Sciences, Inc.
- Slotta, J. D., & Peters, V. L. (2008). A blended model for knowledge communities: Embedding scaffolded inquiry. International Perspectives in the Learning Sciences: Creating a learning world. Proceedings of the Eighth International Conference for the Learning Sciences – ICLS 2008 (pp. 343-350). International Society of the Learning Sciences, Inc.
- Peters, V. L., & Slotta, J. D. (2008). Building wiki-based pedagogical scripts for knowledge communities. International Perspectives in the Learning Sciences: Creating a learning world. Proceedings of the Eighth International Conference for the Learning Sciences – ICLS 2008 (pp. 237-244). International Society of the Learning Sciences, Inc.
- Slotta, J. D. (2007). Supporting collaborative inquiry: New architectures, new opportunities. In C. Chinn, G. Erkens & S. Puntambeker (Eds.) Proceedings of the Computer Supported Collaborative Learning Conference (pp. 21-25). New Brunswick, NJ.
- Kollar, I., Fischer, F., and Slotta, J.D. (2007). Web-based collaborative inquiry learning in German secondary schools - Effects of internal and external collaboration scripts. Workshop presented to the Computer Supported Collaborative Learning (CSCL) conference, Rutgers, NJ.
- Bell, T., Shchanze, S., Graber, W., Slotta, J., Jorde, D., Berg, H.B., Stromme, A. (2005). Technology-Enhanced Collaborative Inquiry Learning: Four Approaches Under Common Aspects. In The Proceedings of the European Science Education Research Association.
- Kollar, I., Fischer, F., and Slotta, J.D. (2005). Internal and External Collaboration Scripts in Web-based Science Learning at Schools. Proceedings of Computer Supported Collaborative Learning (CSCL). June 1-4. Taipei, Taiwan.

- Slotta, J. D., Jorde, D., Fischer, F., Linn, M., Mork, S., Kollar, I., Meister, D. & Decker, R. (2003). International collaborations in a web-based inquiry science environment - promoting cross cultural research and collaborative curriculum. In B. Wasson, R. Baggetun, U. Hoppe, & S. Ludvigsen (Eds.), *Proceedings of the International Conference on Computer Support for Collaborative Learning - CSCL 2003, Interactive Event*. 80-84. InterMedia.
- Clancy, M., Slotta, J.D., Titterton, N. and Linn, M.C. (2003). New Roles for Students, Instructors, and Computers in a Lab-based Introductory Programming Course. *Proceedings of the 34th SIGCSE Technical Symposium on Computer Science Education*. 132-136.
- Slotta, J.D. (2002). Scaling within a school: An in-depth analysis of how teachers in one middle school adopted and adapted WISE inquiry projects. *Proceedings of the International Conference of the Learning Sciences (ICLS)*.
- Slotta, J.D., Clark, D.B., and Cheng, B. (2002). Integrating Palm Hand-held Technology into the Web-based Inquiry Science Environment (WISE). *Proceedings of Computer Supported Collaborative Learning (CSCL)*. 453-462.
- Gobert, J., Slotta, J., & Pallant, A. (2002). Collaborative Model-Building and Peer Critique via the Internet. In P. Bell, R. Stevens, & T. Satwicz (Eds.), *Keeping Learning Complex: The Proceedings of the Fifth International Conference of the Learning Sciences (ICLS)*, pp. 536-537. Mahwah: NJ. LEA.
- Slotta, J. D., & Chi, M. T. H. (1996). Understanding constraint-based processes: A precursor to conceptual change in physics. In G. W. Cottrell (Ed.), *Proceedings of the Eighteenth Annual Conference of the Cognitive Science Society*. 306-307.

### **Reports and Reviews**

- Madeira, C. and Slotta, J.D. (2008). Review of the Cambridge Handbook of the Learning Sciences. *Curriculum Inquiry*.
- Linn, M.C., Slotta, J.D. & Baumgartner, E. (2000) Teaching High School Science in the Information Age: A Review of Courses and Technology for Inquiry-based Learning. Report commissioned by The Milken Family Foundation (p. 1-116). Available at: <http://www.mff.org/pubs/HSscience.pdf>
- Linn, M.C., Slotta, J., Kessel, C, Lee, K., Levenson, J., Spitulnik, M. (2000). Teaching and Learning K-8 Mathematics and Science Through Inquiry: Program Reviews and Recommendations. Report commissioned by the North Central Regional Educational Laboratory (NCREL): <http://www.ncrel.org/engage/resource/resource/> (see math and science)

### **Articles in Press and in Preparation**

- Slotta, J.D. and Najafi, H. (in press). Knowledge Communities in the Classroom. Paper to appear in B. Means (Ed.) *The International Encyclopedia of Education*. Elsevier.
- Slotta, J. D. & Jorde, D. (in press). Learning from our peers in international exchanges: When is worth doing, and how can we help it succeed? *The International Journal of Science Education*.
- Zimmerman, T. and Slotta, J.D. (in preparation). Issue-based instruction in the marine sciences: a key to knowledge integration.
- Slotta, J. D. & Aleahmad, T. (in preparation). Open Source, open content; The implications of open source for eLearning. Paper in preparation for IBM, corporation.

## **Books in Preparation**

Slotta, J. (in preparation). Smart classrooms and knowledge communities: Game changing technologies for education.

## **Media Products**

Associate producer, "Computers Teachers Peers: Science Learning Partners. Caribiner International. (1999). Dunakin, V. (Producer); Greer, T. (Director). Film budget = \$125,000. [Available from Lawrence Earlbaum Associates, Mahwah, NJ]

## **Invited Presentations**

### **Keynote Addresses**

Slotta, J. D. (2009). New ways of teaching and learning with technology. KMDI at 13 keynote lecture. Feb 26. University of Toronto.

Slotta, J.D. (2008). Teaching and learning in technology enhanced classrooms. *Invited Theme Presentation* to the International Conference on Computers in Education. Oct. 27-31. Taipei, Taiwan.

Slotta, J. D. (2007). Making better progress in the next ten years: Open source and online community. *Keynote address* to the Kaleidoscope Alpine Rendez-vous conference.

Slotta, J.D. (2006). Technology Enhanced Learning Environments: Scaffolding inquiry in the classroom and in the scientific community. *Keynote address* to the Kaleidoscope Inquiry Workshop. May 29. University of Twente, The Netherlands.

Slotta, J.D. (2004). International Comparisons and collaborations in a Web-based Inquiry Science Environment. *Keynote Address* to the Institute of Educational Technology, South China Normal University. June 23. Guangzhou, China.

Slotta, J.D. (2004). Technology Enhanced Learning in Science (TELS) - A Flexible Platform for Research of Learning Technologies. *Keynote Address* to the NSF-Funded NAGT Workshop: Teaching Geoscience with Visualizations: Using Images, Animations and Models Effectively. Feb 26-28. Northfield, MN.

Slotta, J.D. (2003). Open-source Web-based Learning (OWL) – Supporting Educational Research, Technology Development, and Classroom Communities. *Keynote Address* to the eLearning Forum. Oct. 19. Berkeley, CA

Slotta, J.D. (2003). *Keynote address* to the Advances in Teaching and Learning Conference, The University of Texas at Houston Medical Center. Designing Powerful Instruction for the Web. Feb 14. Houston, Texas.

Slotta, J.D. (2002). *Keynote address* to the annual meeting of the Technology Challenge Literacy Fund. Integrating Technology into our classrooms: challenges, opportunities, and possible partnerships. June 17. Las Vegas, Nevada.

Slotta, J.D. (2000). Using technology effectively as lifelong science learners. Nov. 5, 2000. Falls Church, VA. *Keynote address* to the Annual Meeting of the National Institutes of Health (NIH), Science Education Partnership Awards.

## Colloquia and Invited Talks

- Slotta, J. D., Peters, V. & Najafi, H. (2009). Supporting knowledge communities: A pedagogical framework.. Invited talk for the Second Biennial Stellar Alpine Rendez-vous. Nov. 30 – Dec. 3. Garmish Parten-Kirchen, Germany.
- Slotta, J. D., Tiessenbaum, M. & Lui, M. (2009). Invited talk for Smart Classrooms: Enabling Complex Pedagogical Scripts. Paper presented at the Second Biennial Stellar Alpine Rendez-vous. Nov. 30 – Dec. 3. Garmish Parten-Kirchen, Germany.
- Slotta, J. D. (2009). Scientific visualizations: The need for integration within an inquiry context. Colloquium presentation to the Knowledge Media Design Institute seminar on visualizations and learning. May 28. University of Toronto.
- Slotta, J. D. and Haklev, S. (2009). Open educational resources around the world. Education Commons Special Event. March 12. Knowledge Innovation Lab, University of Toronto.
- Slotta, J.D. and Anwar, A. (2009). M-Learning: Taking the Show on the Road. Education Commons Special Event. Feb 12. Knowledge Innovation Lab, University of Toronto.
- Slotta, J.D. (2008). The Use of Wikis in Collaborative Knowledge Generation And Critical Thinking. RCAT Seminar. November 26. The University of Toronto
- Slotta, J.D. (2008). Technology-enhanced Learning for Knowledge Communities. Brownbag colloquium presented to the Center for Math, Science and Technology, OISE. November 5. University of Toronto.
- Slotta, J.D. (2008). A blended model for collaborative knowledge construction in science classrooms. Presentation to the annual meeting of Technology Enhanced Learning in Science (TELS) center. Aug. 4. Berkeley, California.
- Slotta, J.D. (2008). Smart Classrooms and Scalable Architectures. Presentation to the Intermedia Lab, University of Oslo. July 2. Oslo, Norway.
- Slotta, J.D. (2008). New ways of teaching and learning in smart classrooms. SMT Brownbag colloquium. April 2. University of Toronto.
- Slotta, J.D. (2008). Teaching with technology in nursing education. Colloquium presentation to the Bloomburg School of Nursing. March 12. University of Toronto.
- Slotta, J.D. (2007). Social Networking in the Learning Sciences. Presentation for Social Networking Day. Nov. 2. University of Toronto.
- Slotta, J. D. (2007). Classroom of the future: How do we arrive there? Colloquium presentation May 23. Ludwig Maximilians University, Munich, Germany.
- Slotta, J.D. (2007). New opportunities for teaching with technology. Invited lunchtime colloquium. Institute for Child Studies. January 31. Toronto.
- Slotta, J.D. (2007). Reflection on the semiotic relationship between learning technologies and research programs. Research colloquium presented to Sandoval, Kafai and Enyedy lab. Feb 26. Los Angeles.
- Slotta, J.D. (2006). A Scalable architecture for interactive learning: Enabling international partnerships. Invited colloquium to the Intermedia Center, University of Oslo. June 1. Oslo, Norway.
- Slotta, J.D. (2006). Open source and open content partnerships in education: The promise of dynamic communities. NetCOIL Research Colloquium. August 28. OISE, University of Toronto.

- Slotta, J.D. (2006). Technology Enhanced Learning Environments: Scaffolding inquiry in the classroom and in the scientific community. HDAP Seminar Talk. November 8, 2006. OISE, University of Toronto.
- Slotta, J.D. (2006). Next steps in technology enhanced learning: Building an exchange community for designers and researchers. SMT Luncheon Brownbag. November 16, 2006. OISE, University of Toronto.
- Slotta, J.D. (2005). Toward a framework for interoperable learning technologies. Presentation to the Intermedia Institute, University of Oslo. August 5. Oslo, Norway.
- Slotta, J.D. (2004). Open-source Web-based Learning (OWL) – Design goals for an architecture that supports an open source community of developers and an open content community of authors and instructors. Kick-off address to the OWL Design retreat, funded by IBM faculty award and NSF. March 17-19. Monterey, CA.
- Slotta, J.D. (2004). Developing Scalable Collaborative Inquiry Projects in a Web-based platform. Invited presentation to the Collaborative Reasoning Research Project (Richard Anderson, PI). University of Illinois, Urbana Champagne. Mar. 2-3.
- Slotta, J.D. (2003). Integrating Content from Digital Libraries: How can research-based innovations in curriculum and assessments leverage the wealth of content in NSDL? Presentation to the Science Education Resource Center,. October 28. Northfield, MN.
- Slotta, J.D. (2002). WISE Technology for International Partnerships. Presentation to special Japanese delegation for educational technology partnerships. March 8. Berkeley, CA.
- Slotta, J.D. (2001). The Web-based Inquiry Science Environment (WISE): Technology, Curriculum and Professional Development. Invited presentation to the Educational Resources Group, Monterey Bay Aquarium. March 12. Monterey, CA.
- Slotta, J.D. (2001). The Web-based Inquiry Science Environment (WISE): Inquiry and technology for science curriculum. Invited presentation to the Cognitive Studies group, Chukyo University. February 23, 2001. Nagoya Japan.
- Slotta, J.D. (2000). The Web-based Integrated Science Environment (WISE): Technology, curriculum, and teacher communities. Graduate School of Education, University of California at Berkeley Colloquium Series, December 4. Berkeley, CA.
- Slotta, J.D. (1999). How can the Internet help teachers implement Inquiry Activities in their science curriculum? Invited lecture at California State University, San Bernardino, January 23. San Bernardino, CA.
- Slotta, J.D. (1999). The Web-based Integrated Science Environment; Perspectives on research and design. Invited presentation to Stanford University Seminar on Design of Learning Environments. November 9, 1999. Palo Alto, CA.
- Slotta, J.D. (1996). Instruction for Conceptual Change: The Success Story of Ontology Training. Graduate School of Education, University of California at Berkeley Colloquium Series, November 24. Berkeley, CA.,

### **Workshops**

- Slotta, J.D., Linn, M. C. and Madeira, C. (2009). A Technology community for the learning sciences. Canada-California Strategic Innovation Partnership (CCSIP) workshop. Oct. 17-20. Monterey, California.

- Slotta, J.D. and Zhao, N. (2009). China-University of Toronto research partnerships. Workshop with 8 visiting Chinese scholars and Education Ministry officers, and 6 University of Toronto faculty. August 12-14. Toronto.
- Linn, M. C., Beneman, K., Madeira, C. and Slotta, J.D. (2009). Logging Opportunities for Teacher Professional Development in Science. Annual meeting of the Technology-enhanced Learning in Science (TELS) center. August 3-7. Minneapolis, MN.
- Slotta, J.D. and Aleahmad, T. (2008). Technology community for open source and innovation. Educoder launch and retreat. October 24-27. Kawartha Lakes, Ontario.
- Linn, M. C., Slotta, J.D., Tinker, R. (2008). Research and Technology convergence: Supporting the TELS knowledge community. Annual meeting of the Technology-enhanced Learning in Science (TELS) center. August 1-8. Berkeley, California.
- Slotta, J.D., Aleahmad, T., and Bannasch, S. (2008). The Scalable Architecture for Interactive Learning (SAIL) - New tools and communities for research. Workshop presentation at the International Conference of the Learning Sciences (ICLS). June 25-26. Utrecht, The Netherlands.
- Aleahmad, T., Slotta, J.D., and Van Joolingen, W. (2007). Supporting the convergence of CSCL and inquiry: Architecture, resources and community. Workshop presentation to the Computer Supported Collaborative Learning (CSCL) conference, Rutgers, NJ.
- Slotta, J. D. (2007). Scripting Environments for Collaborative Inquiry: New Architectures & New Opportunities. Kaliedoscope Alpine Rendez-Vous workshop on Scripting and Collaborative Learning. January 23. Villars, Switzerland.
- Kollar, I., Fischer, F., and Slotta, J.D. (2007). Web-based collaborative inquiry learning in German secondary schools - Effects of internal and external collaboration scripts. Workshop presentation to the Computer Supported Collaborative Learning (CSCL) conference, Rutgers, NJ.
- Slotta, J.D. (2007). Supporting the convergence of CSCL and inquiry: Architecture, resources and community. Workshop presentation to the Computer Supported Collaborative Learning (CSCL) conference, Rutgers, NJ.
- Aleahmad, T., Slotta, J.D., and Van Joolingen, W. (2007). Authoring frameworks for integrating collaborative learning technologies. Workshop coordinated at the Computer Supported Collaborative Learning (CSCL) conference, Rutgers, NJ.
- Slotta, J. D. (2007). Evolving the classrooms of the future: The interplay of pedagogy, technology and community. Kaliedoscope Alpine Rendez-Vous workshop on classrooms of the future. January 25. Villars, Switzerland.
- Slotta, J.D., and Aleahmad, T. (2005). The Scalable Architecture for Interactive Learning (SAIL) -- Background, design and demonstration. Annual meeting of the Technology-enhanced Learning in Science (TELS) center. July 13-17. State College, Pennsylvania
- Slotta, J.D. (2004). Researching the Web-based Inquiry Science Environment: Integrating technology and inquiry into the science curriculum. Presentation to the "Bringing Research on Learning to the Geosciences" workshop. May 7-9. Northfield, Minnesota.
- Slotta, J.D. (2003). The Educational Accelerator: Partnership Opportunities in the TELS Center. Poster and presentation to NSF-DFG collaboration workshop., Nov. 13-15. Tuebingen, Germany.

- Slotta, J.D. (2002). The WISE Rock Cycle Project: New methods of assessment to support technology-enhanced earth science curriculum. Presentation to the American Geophysical Union Meeting: *Using Global Datasets in Teaching Earth Processes*. December 5. San Francisco, CA.
- Slotta, J.D. (2002). The Web-based Inquiry Science Environment: Technology, Curriculum and Teacher Supports. Presentation to the Superintendents' Coalition Conference: Leadership in Learning: Advancing Equity, Quality Teaching and Learning, and Student Achievement in SMT Classrooms. Feb. 28. Palo Alto, CA.
- Slotta, J.D. and Linn, M.C. (2001). Partnerships with the Web-based Inquiry Science Environment. Presentation to the University of California DiMI initiative conference, October 12, 2001. Palo Alto, CA.
- Linn, M.C, and Slotta, J.D. (2001). The Web-based Inquiry Science Environment (WISE): Inquiry for Lifelong Learning. Spotlight Presentation at NECC: The National Educational Computing Conference. June 25 - 29, 2001. Chicago, IL.
- Slotta, J.D. (2001). Online community technologies for curriculum authoring and professional development. Invited presentation to the Workshop on Cognition and Instruction, February 24, 2001. Toyota City, Japan.
- Slotta, J.D. (2000). How do WISE Curriculum and Technology help make thinking visible? Presentation to the NSF Visualization and Modeling Workshop, Oct. 25, 2000. Arlington, VA.
- Slotta, J.D. (2000). Adding "WISE" activities to your science curriculum. Invited presentation to the American Physiology Society Summer Program. July 20, 2000. Falls Church, VA.
- Slotta, J.D. (2000). Supporting WISE Teachers in Norway and the US. Invited presentation to the NKUL Conference: The New Technologies: Challenges and opportunities for educational settings" at the Norwegian University of Science and Technology. May 12, 2000. Trondheim, Norway.
- Slotta, J.D. (2000). Connecting classrooms from Minnesota and Norway: Wolves in our backyards. Invited presentation to The Norwegian Association for wolf and predator research, special assembly at the Wolf 2000 conference. February 23, 2000. Duluth, Minnesota.
- Slotta, J.D. (1999). How can we translate current science controversies into effective science curriculum? Invited presentation to the "Frogs as Bio-indicators" National Education Summit. April 16-17. St. Paul, Minnesota.
- Slotta, J.D. (1995). Cognitive Science, Curriculum and Instruction: The implications of cognitive research for instruction and facilitation methods. Invited presentation to the Institute of Cultural Affairs workshop on training and facilitation. July 21-23. Denver, Colorado.

### **Teacher Professional Development Workshops Designed and Facilitated:**

TELS curriculum planning workshops for teachers (Designer, Instructor)

University of Toronto Schools, July, 2005; October, 2005.

Technology Enhanced Learning in Science (TELS) Retreat (Designer, Instructor)

University of California, Berkeley. August, 2004; July, 2005

Evidence-based Planning Workshop for Teachers (Designer, Instructor)

University of California, Berkeley. August, 2002; August, 2003

Inquiry and Technology Integration using WISE

Minnesota Science Teachers, Assoc., Duluth, MN. Mar 15, 2000.

Denver Public Schools District. Denver, CO. April 6, 2000

Desert Sands Unified School District. Palm Springs, CA. April 15, 2000

Clark County Public Schools, Las Vegas, Nevada. June 25-26, 2002

Berkeley Unified School District, Berkeley, CA October 13, 2002

Inquiry and Technology for Secondary Science - Hamline University.

Summer, 2000, 2001 (Instructor)

WISE-SCOPE Summer Workshop for Teachers (Instructor)

University of Washington, Seattle. August, 2000, 2001.

American Physiology Society Summer Workshop for Teachers (Designer, Instructor)

American Physiology Society Annual Summer Program. May, 1999, 2000.

WISE Summer Workshop for Teachers (Designer, Instructor)

University of California, Berkeley. August, 1998, August 1999.

KIE Summer Workshop for Teachers (Designer, Instructor)

University of California, Berkeley. August, 1996, August 1997.

### **Advisory Meetings**

Slotta, J.D. (2003). Online communities and partnerships. Synergy Communities for Aggregating Learning About Education (SCALE). Advisory board meeting. August 5-6. Berkeley, California.

Slotta, J.D. (2003). International partnerships in learning technologies. Opportunities for open source with WISE-Viten.no. Institutt for L ererutdanning og skoleutvikling (ILS) Advisory board meeting. June 22-23. Oslo, Norway,

Slotta, J.D. (2003). The e-Learning Market in the Next 3-5 Years. Meeting of the Advisory Board of the IBM Institute for Advanced Learning, May 20-21. Armonk, NY.

Slotta, J.D. (2001). WISE District Partnerships: Introducing technology-rich inquiry activities into your science curriculum. Presentation to the Department of Educational Services, Denver Unified School District. Jan. 4. Denver, Colorado.

Slotta, J.D. (2000). WISE District Partnerships: Introducing technology-rich inquiry activities into your science curriculum. Presentation to the Superintendent and Department of Educational Services, Desert Sands Unified School District. Dec. 12. Palm Desert, CA.

Slotta, J.D. (2000). Developing a curriculum partnership: WISE Wolves in Your backyard. Invited presentation to the Board of directors, the International Wolf Center. Feb, 12. Duluth, Minnesota.

## Conference Presentations

• 2009 •

- Slotta, J.D. and Najafi, H. (2009). Visual representations of a knowledge community: A new role for concept maps. Paper presented at the biennial meeting of the European Science Education Research Association (ESERA). Sept. 1-4. Istanbul, Turkey.
- Slotta, J.D., Najafi, H., & Peters, V. L. (2009). Fostering a Knowledge Community in Secondary Science: A Blended Model of Collaborative Knowledge Construction and Scripted Inquiry. Paper presented at the 13th Biennial Conference for the European Association for Research on Learning and Instruction (EARLI). Aug 25-29. Amsterdam, the Netherlands.
- Peters, V. L., & Slotta, J. D. (2009). Co-designing a collaborative curriculum for secondary school biology. Paper presented at the 13th Biennial Conference for the European Association for Research on Learning and Instruction (EARLI). Aug 25-29. Amsterdam, the Netherlands.
- Slotta, J.D. (2009). A forum for international peer exchange: Consequences and conversations. Paper presented at the 13th Biennial Conference for the European Association for Research on Learning and Instruction (EARLI). Aug 25-29. Amsterdam, the Netherlands.
- Slotta, J.D. and Aleahmad, T. (2009). Toward a technology community for the learning sciences. CSCL. Panel presented at the Eighth International Conference on Computer Supported Collaborative Learning (CSCL). Rhodes, Greece, June 10-12.
- Slotta, J.D. & Linn. M.C. (2009). Designing effective collaborative inquiry: New technology frameworks. Paper presented at the biennial conference on Computer Supported Collaborative Learning (CSCL). Rhodes, Greece, June 10-12.
- Tissenbaum, M. & Slotta, J.D. (2009). A new framework for smart classroom research: Co-designing curriculum, research and technology. Poster presented at the biennial conference on Computer Supported Collaborative Learning (CSCL). Rhodes, Greece, June 10-12
- Peters, V. L., & Slotta, J. D. (2009). Co-designing curricula to promote collaborative knowledge construction in secondary school science. Paper presented at the biennial conference on Computer Supported Collaborative Learning (CSCL). Rhodes, Greece, June 10-12
- Najafi, H., & Slotta, J. D. (2009). Sustaining collaborative knowledge construction in graduate-level education: Examining design issues. Paper presented at the biennial conference on Computer Supported Collaborative Learning (CSCL). Rhodes, Greece, June 10-12
- Madeira, C., & Slotta, J. D. (2009). Designing On-line Communities to Enhance Teacher Professional Development. Poster presented at the biennial conference on Computer Supported Collaborative Learning (CSCL). Rhodes, Greece, June 10-12.
- Tissenbaum, M. and Slotta, J.D. (2009). Co-designing curriculum for smart classrooms. Paper presented at the annual meeting of the Canadian Society for Studies in Education. May 25-27. Ottawa, Ontario, Canada.

- Slotta, J.D. (2009). Integrating technologies – for deep learning. In. J. D. Slotta (Chair), Co-designing technology-enhanced curriculum with secondary science teachers. Paper presented at the annual meeting of the Canadian Society for Studies in Education. May 25-27. Ottawa, Ontario, Canada.
- Najafi, H., Slotta, J. D. (2009). Researching a Knowledge Community Approach for Secondary Science Classrooms. In. J. D. Slotta (Chair), Co-designing technology-enhanced curriculum with secondary science teachers. Paper presented at the annual meeting of the Canadian Society for Studies in Education. May 25-27. Ottawa, Ontario, Canada.
- Peters, V. L., & Slotta, J. D. (2009). A knowledge community model for collaborative inquiry science curriculum. In. J. D. Slotta (Chair), Co-designing technology-enhanced curriculum with secondary science teachers. Paper presented at the annual meeting of the Canadian Society for Studies in Education. May 25-27. Ottawa, Ontario, Canada.
- Madeira, C & Slotta, J.D. (2009). The Role of Reflection and Peer Exchange in the Development of Pedagogical Content Knowledge. In. J. D. Slotta (Chair), Co-designing technology-enhanced curriculum with secondary science teachers. Paper presented at the annual meeting of the Canadian Society for Studies in Education. May 25-27. Ottawa, Ontario, Canada.
- Madeira, C.A. & Slotta, J.D. (2009). A Distributed Knowledge Community for Science Teachers: The Impact of Peer Exchange and Reflection Tools. Paper presentation at the Annual Meeting of the National Association for Research in Science Teaching, (April), Orange County, California.
- Madeira, C.A. & Slotta, J.D. (2009). The Development of PCK in Science Teachers: Classroom Enactment as a Prompt for Reflection. Poster Presentation at the Annual Meeting of the National Association for Research for Science Teaching, (April), Orange County, California.
- Slotta, J. D., & Peters, V. L. (2009, April). A rich framework for knowledge communities in secondary science. In. J. D. Slotta (Chair), New technology supports for authentic science inquiry, practice, and assessment in the classroom. Paper presented at the annual meeting of AERA 2009. San Diego, CA.
- Forbes, C.T., Madeira, C.A. Davis, E.A. & Slotta, J.D. (2009). Activity-Theoretical Research on Science Teachers' Learning: Challenges and Opportunities. Paper presentation at the Annual Meeting of the American Educational Research Association, (April), San Diego, California.
- Najafi, H., Slotta, J. D. & Gelb, D. (2009, April). Opportunities and Challenges for Persistent Knowledge Construction in a Wiki-Supported Interdisciplinary Seminar. Poster presented at the annual meeting of AERA 2009. San Diego, CA.
- Peters, V. L., & Slotta, J. D. (2009, April). Scripting a Collaborative Curriculum for High School Biology: A Co-Design Approach. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

• 2008 •

- Najafi, H., Slotta, J. D. & Gelb, D. (2008, August). Promoting knowledge building in graduate-level education: Opportunities and pitfalls . Paper presented at the IKIT Summer Institute, Toronto, ON.

- Peters, V., & Slotta, J. D. (2008). Building wiki-based pedagogical scripts for knowledge communities. Proceedings of the International Conference of the Learning Sciences. June 23-27. Utrecht, The Netherlands.
- Slotta, J.D. and Peters, V. (2008). A Blended Model for Knowledge Communities: Embedding Scaffolded Inquiry. Paper presented at the bi-annual meeting of the International Conference of the Learning Sciences (ICLS). June 23-27. Utrecht, The Netherlands.
- Peters, V., & Slotta, J.D. (2008). Co-designing wiki-based scripts for secondary school biology. Paper presented at the annual meeting of the Canadian Society for Studies in Education. May 31 – June 3. Vancouver, BC.
- Najafi, H., Slotta, J., Gelb, D. (2008). Understanding the relationships between curriculum planning decisions, patterns of activity, and learning outcomes: An analysis of the evolution of a course community. Paper presented at the annual meeting of the Canadian Society for the Study of Education. May 31 – June 3. Vancouver, BC.
- Peters, V., & Slotta, J. D. (2008). Connecting Knowledge Building With Scripted Activities in a Secondary School Biology Classroom: A Case Study. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.
- Najafi, H., Slotta, J. D. (2008). Examining the Growth Trajectory of a Wiki-Based Knowledge Community. Paper presented at the Dean's Graduate Student Research Conference. Toronto, ON.

• 2007 •

- Slotta, J.D. (2007). Learning in the 21<sup>st</sup> Century: New Opportunities for Knowledge Communities. Presentation to the IBM CASCON Conference. December 10. Toronto, Canada.
- Slotta, J.D. (2007). How we test our theoretical models: Media dependencies and empirical paradigms. Paper presented at the biennial meeting of the European Association for Research on Learning and Instruction (EARLI). August 28 – September 1. Budapest, Hungary.
- Peters, V. and Slotta, J.D. (2007). Connecting knowledge building with scripted activities in a secondary school biology classroom: A case study. Paper presented at the IKIT summer institute. August 10. Toronto.
- Slotta, J.D. (2007). Supporting collaborative inquiry: New architectures, new opportunities. Paper presented at the bi-annual Computer Supported Collaborative Learning (CSCL) conference. July 1-3. Rutgers, NJ.
- Kollar, I., Wecker, C., Fischer, F., Kohnle, C., Slotta, J.D. (2007). Are core objectives of Web-based collaborative inquiry learning already core learning prerequisites? The case of argumentation competences and computer literacy. Paper presented at the annual Computer Supported Collaborative Learning (CSCL) conference, Rutgers, NJ.
- Slotta, J.D. Jorde, D. (2007). New opportunities for international exchanges: A Review, and next steps. Paper presented at the Annual Meeting of the American Educational Research Association. Chicago, IL.
- Zimmerman, T.D. & Slotta, J.D. (2007). *Connecting science to real world issues: A knowledge integration approach*. Paper presentation at the Annual Meeting of the American Educational Research Association. Chicago, IL.

• 2006 •

- Slotta, J.D. and Zimmerman, T. (2006). Supporting student inquiry projects in science: new architectures and new opportunities. Paper presented at Howard Hughes Foundation meeting: "To Think and Act Like a Scientist. Feb 10-11, 2006. Lubbock, Texas.
- Slotta, J.D. (2006). A New Open Source Technology Architecture for Collaborative Inquiry. Paper presented at the Annual Meeting of the American Educational Research Association. April 9-14. San Francisco
- Kollar, I., Fischer, F., & Slotta, J.D. (2006). Web-Based Inquiry Learning: How Internal and External Scripts Influence Collaborative Argumentation and Individual Learning Outcomes. Paper presented at the Annual Meeting of the American Educational Research Association. April 9-14. San Francisco
- Gobert, J., Horwitz, P., Tinker, B., and Slotta, J.D. (2006). Authoring, Assessment & Open Source: Implications for Research and Classroom Application. Interactive workshop and panel presentation at the International Conference of the Learning Sciences. June 27 – July 1. Bloomington.

• 2005 •

- Slotta, J.D. (2005). Technology-enhanced collaborations: new opportunities for curriculum and research. Paper presented at semi-annual meeting of the European Science Education Research Association. Aug. 28 – Sept. 1. Barcelona, Spain.
- Slotta, J.D. (2005). Applying a conceptual change model in technology-enhanced instruction. Paper presented at the European Association for Research in Learning and Instruction (EARLI). Aug. 23-26. Nicosia, Cyprus.
- Slotta, J.D. (2005). Scaffolding Interactive Learning: The Case for a Rich Interoperability Framework. Structured Session presented to the Annual Meeting of the American Educational Research Association. April 11-15. Montreal, Quebec, Canada.
- Slotta, J.D. (2005). Next generation technologies for peer collaboration and exchange. Paper presented at the annual Winter Text conference. January 21-24, Jackson, WY.
- Kollar, I., Fischer, F., and Slotta, J.D. (2005). Internal and External Collaboration Scripts in Web-based Science Learning. Proceedings of Computer Supported Collaborative Learning (CSCL) Taipei. June 8-13.

• 2004 •

- Slotta, J.D. (2004). Technology-enhanced Learning in Science: promoting research partnerships in a Web-based platform. Paper presented at the annual Winter Text conference. January 16-19, Jackson, WY.
- Kollar, I., Kobbe, L., Fischer, F., Slotta, J.D., and Koschwitz, H. (2004). Analysis and facilitation of scientific argumentation – The interaction of internal and external cooperation scripts in Web-based inquiry learning. Paper presented to the annual meeting of the National Association for Research in Science Teaching (NARST). Mar. 31-Apr. 4. Vancouver, BC. Canada.
- Slotta, J.D., Jorde, D. & Erlien, W. (2004). International collaborations in a Web-based inquiry science environment: Promoting cross-cultural research and collaborative curriculum. Paper presented to the annual meeting of the National Association for Research in Science Teaching (NARST). Mar. 31-Apr. 4. Vancouver, BC, Canada.

Renninger, A., Schlager, M., Slotta, J.D., Hanson, K., Sumner, T., Nair, S., Recker, M., and Shumar, W. (2004). Why do they come? And, what do they want? Toward a framework for studying online participation. Structured Session presented to the Annual Meeting of the American Educational Research Association. April 12-16, San Diego, CA.

Slotta, J. D. and Zimmerman, T. (2004). Integrating Handheld activities into Web-based inquiry projects. Paper presented to the Annual Meeting of the American Educational Research Association. April 12-16. San Diego, CA.

Slotta, J. (2004). Integrating visualizations into geoscience curriculum and assessments. Paper presented to NAGT Cutting Edge Workshop: Visualizations in the Geosciences. Annual Meeting of the American Geophysics Union. Dec. 12, 2004.

• 2003 •

Slotta, J.D. (2003). Content analysis of verbal data from Web-based curriculum projects: Implications for cognitive and educational research. Paper presented to the annual Winter Text conference. January 22-25, Jackson, WY.

Gobert, J., Slotta, J.D., and Pallant, A. (2003). Students' collaborative model-building and peer critique on-line. Paper presented to the annual meeting of the National Association for Research in Science Teaching (NARST). March 22-25. Philadelphia, PA.

Slotta, J. D. (2003). Organizer: Partnerships in The Web-based Inquiry Science Environment. Symposium presented to the annual meeting of the National Association for Research in Science Teaching (NARST). March 22-25. Philadelphia, PA. \*war canceled session.

Zimmerman, T. and Slotta, J.D. (2003). Helping Students Learn Difficult Biology Concepts Through Knowledge Integration Activities in the Classroom and at an Aquarium. Paper presented to the Annual Meeting of the American Educational Research Association. April 21-25. Chicago, IL.

Slotta, J.D. Linn, M.C., Jorde, D., Mork, S., Fischer, F., Kollar, I., Meister, D., Decker, R. (2003). International collaborations in a Web-based Inquiry Science Environment: Promoting cross cultural research and collaborative Curriculum. Poster presented to the the annual meeting of Computer Supported Collaborative Learning (CSCL). June 14-18. Bergen, Norway.

Slotta, J.D., Linn, M.C., Jorde, D., Mork, S., Shirousu, H., Fischer, F. & Kollar, I. (2003). International collaborations in a Web-based Inquiry Science Environment: Promoting cross cultural research and collaborative curriculum. Interactive session presented to the the annual meeting of Computer Supported Collaborative Learning (CSCL). June 14-18. Bergen, Norway.

Slotta, J.D., Kerber, A. and Duffy, L.(2003). Gypsy Moths, WISE and the Minnesota State Department of Natural Resources: Supporting Curriculum Partnerships. Paper presented at the National Science Teachers Association Meeting. October 28-30. Minneapolis, MN.

• 2002 •

Slotta, J.D., Clark, D.B., Cheng, B. (2002). Integrating Palm Hand-held Technology into the Web-based Inquiry Science Environment (WISE). Short paper presented at the annual meeting of Computer Supported Collaborative Learning (CSCL). January 1-7. Boulder, CO

- Slotta, J.D. and Zimmerman, T. (2002). Using Handheld technology to support innovative curriculum in the Monterey Bay Aquarium. Poster presented at the annual meeting of Center for Innovative Learning Technologies (CILT). Feb 23-25, 2002. Portland, OR.
- Gobert, J. Slotta, J. & Pallant, A., Nagy, S. & Targum, E. (2002). *A WISE Inquiry Project for Students' East-West Coast Collaboration*, Presented at the Annual Meeting of the American Educational Research Association, New Orleans, LO, April 1-5
- Cuthbert, A. & Slotta, J.D. (2002). Design Studies: Enabling rapid cycles of trial and refinement using the WISE design principles WISE Online Communities. Poster presented to the Annual Meeting of the American Educational Research Association. April 1-6, 2002. New Orleans, LA.
- Slotta, J.D. & Jorde, D. (2002). How American and Norwegian Teachers Customized the WISE Learning Environment to Improve its Value and Validity. Paper presented to the Annual Meeting of the American Educational Research Association. April 1-6, 2002. New Orleans, LA.
- Jorde, D., Slotta, J.D. & Mork, S. (2002). Implementing a Web-Based Curriculum in Science Classrooms: A Comparative Study of Teachers in Norway and the US. Paper presented to the annual meeting of the National Association for Research in Science Teaching (NARST). April 7-10. New Orleans, LA.
- Scheepens, R. & Slotta, J.D. (2002). Why WISE? Helping Physics Teachers to Use The Internet in a Different Way. Paper presented to the annual meeting of the National Association for Research in Science Teaching (NARST). April 7-10. New Orleans, LA.
- Slotta, J.D. (2002). How WISE accommodates diverse teaching practices: Not so brittle that it breaks. Paper presented to the annual meeting of the National Association for Research in Science Teaching (NARST). April 7-10. New Orleans, LA.
- Gobert, J. & Slotta, J.D. (2002). Inquiry Learning through Students' East-West Coast Collaboration. Paper presented to the annual meeting of the National Association for Research in Science Teaching (NARST). April 7-10. New Orleans, LA.
- Slotta, J.D., & Cheng, B. (2002). Integrating Palms into WISE: The Web-based Inquiry Science Environment. Paper presented to the Annual Meeting of the National Educational Computing Conference (NECC). June 12-14. San Antonio, TX.
- Aleahmad, T. and Slotta J.D. (2002). Integrating Handheld Technology and Web-based Science Activities. Paper presented at ED-MEDIA. Denver, CO. June 24-29.
- Linn, M.C., Baumgartner, E. and Slotta, J.D. (2002). Contrasting Models for the Customization of Curriculum. Part of special session: Is Reform Portable? A Consideration of Issues and Strategies Related to Creating Sustainable and Scalable Innovations (N. Sabelli, organizer). International Conference of the Learning Sciences (ICLS). Oct. 23-26, 2002. Seattle, WA.
- Gobert, J., Slotta, J.D., and Pallant, A. (2002). Collaborative Model-building and Revision Over the Wire. Poster presented at the International Conference of the Learning Sciences (ICLS). Oct. 23-26, 2002. Seattle, WA.
- Slotta, J.D. (2002). WISE Scaling: Customization and mentoring in a 3rd Generation Learning Technology. Paper presented to the International Conference of the Learning Sciences (ICLS). Oct. 23-26, 2002. Seattle, WA.

• 2001 •

- Slotta, J.D. (2001). The Web-based Inquiry Science Environment: Technology for partnerships and inquiry curriculum. Paper presented at the annual meeting of the American Association for the Advancement of Science (AAAS). February 12. San Francisco, CA.
- Slotta, J.D. (2001). Wolves and Frogs in your curriculum: Integrating WISE inquiry and technology for Minnesota teachers. Workshop presented to the Annual Meeting of the Minnesota and Wisconsin Science Teachers Association. March 15, 2001. Duluth, MN.
- Slotta, J.D. and Cuthbert, A. (2001). WISE Online Communities: Design Features and Critical Features. Paper presented at the annual meeting of the American Educational Research Association. April 10-14. Seattle, WA.
- Slotta, J.D. & Linn, M.C. (2001). WISE Professional Development: *Researching Adoption of Inquiry and Technology*. Paper presented at the annual meeting of the American Educational Research Association. April 10-14. Seattle, WA.

• 2000 •

- Slotta, J.D., Kerber, A.K., Cuthbert, A. and Stromme, A. (2000). How can wolf control controversies help students using the Web-based Integrated Science Environment (WISE). Paper presented at the "Wolf 2000" International Symposium, Duluth, MN. Feb 12-14, 2000
- Monaghan, J., Slotta, J.D., Levey, B., and Cuthbert, A. (2000). Professional development through immersion in a dynamic on-line community: Using the Web-based Integrated Science Environment (WISE). Annual Meeting of the AECT.
- Cheng, B.H., Linn, M.C., and Slotta, J.D., (2000). Changing Culture of Assessment: Designing Curriculum that Connects to Students' Epistemological Beliefs. Paper presented at the Annual Meeting of the American Educational Research Association, April 14-18, New Orleans, LA.
- Baumgartner, E., Cheng, B., Seethaler, S., Lo, E., and Slotta, J.D. (2000). The Design of Flexibly Adaptive Tools for Understanding Water Quality. Paper presented at the Annual Meeting of the American Educational Research Association, April 14-18, New Orleans, LA.
- Cuthbert, A., Clark, D.B., Slotta, J.D., and Jorde, D. (2000). Helping Students Elicit Self-Explanation and Clarification From One Another Through Personalized Electronic Discussions. Paper presented at the Annual Meeting of the American Educational Research Association, April 14-18, New Orleans, LA.
- Slotta, J.D. (2000). Developing a SCOPE Curriculum Sequence: Web-Based Activities for a Controversy Curriculum. Paper presented at the Annual Meeting of the American Educational Research Association, April 14-18, New Orleans, LA.
- Baumgartner, E., Cheng, B., Seethaler, S., and Slotta, J.D. (2000). Strawberry Creek: A case of iterative curriculum design. Paper presented at the National Association for Research in Science Teaching (NARST) annual meeting. April 28 - May 1, New Orleans, LA.
- Jorde, D., Slotta, J.D., and Stromme, A. (2000). An international comparison of an internet curriculum. Paper presented at the National Association for Research in Science Teaching (NARST) annual meeting. April 28 - May 1, New Orleans, LA.

- Stromme, A., Jorde, D., and Slotta, J.D. (2000). The Web-based Integrated Science Environment: A partnership between the University of California, Berkeley and Oslo, Norway. Paper presented at the National Association for Research in Science Teaching (NARST) annual meeting. April 28 - May 1, New Orleans, LA.
- Slotta, J.D. (2000). A WISE Model for Professional Development. Paper presented at the National Association for Research in Science Teaching (NARST) annual meeting. April 28- May 1. Boston, MA.
- Slotta, J.D. and Linn, M.C. (2000). Designing WISE Assessments that accommodate teacher customizations. Presentation to the Workshop of the Center for Innovative Learning Technologies (CILT). Oct. 27, 2000. Washington, DC.

• 1999 •

- Galili, I., Slotta, J.D., and Linn, M.C. (1999). A New Pattern to Teach Science Based on Research on Students' Knowledge and Computer Environment. National Association for Research in Science Teaching (NARST) annual meeting. March 28-31. Boston, MA.
- Slotta, J.D., Dodson, K., and Marantz, J. (1999). Making Use of Existing Web Resources: A Partnership Between KIE and the NASA Life Sciences Data Archive. National Association for Research in Science Teaching (NARST) annual meeting. March 28-31. Boston, MA.
- Russell, J. and Slotta, J.D. (1999). The Scientist Who Went Back to School: A Case Study of Partnership in Curriculum Development. National Association for Research in Science Teaching (NARST) annual meeting. March 28-31. Boston, MA.
- Monaghan, J., Slotta, J.D., and Cuthbert, A. (1999). A Professional Development Model for Effective Internet Use: The Web-Based Integrated Science Environment (WISE). National Association for Research in Science Teaching (NARST) annual meeting. March 28-31. Boston, MA.
- Slotta, J.D., Cheng, B., and Linn, M.C. (1999). Designing Effective Integrated Science Curriculum: Toward a Theoretical Framework. Paper presented at the Annual Meeting of the American Educational Research Association, April 19-23; Montreal, Quebec, Canada.
- Slotta, J.D., Dodson, K., and Marantz, J. (1999). Rats in Space: A Curriculum Partnership Between NASA Life Sciences, a High School Life Sciences Teacher, and the Knowledge Integration Environment Project. Paper presented at the Annual Meeting of the American Educational Research Association, April 19-23; Montreal, Quebec, Canada.
- Oliver, K.M. and Slotta, J.D. (1999). The Utility of Computer Tools to Support Students' Scientific Problem Solving. Paper presented at the Annual Meeting of the American Educational Research Association, April 19-23; Montreal, Quebec, Canada.
- Slotta, J.D. and Linn, M.C. (1999). Helping Students Use the Internet Effectively in Science Activities: The Knowledge Integration Environment. Paper presented at the Annual Meeting of the American Educational Research Association, April 19-23; Montreal, Quebec, Canada.
- Linn, M.C., Bell, P., Shear, L., and Slotta, J.D. (1999). Internet Science Partnerships: Can Rats and Deformed Frogs Help Students Learn? Paper presented at the Annual Meeting of the American Educational Research Association, April 19-23; Montreal, Quebec, Canada.
- Chi, M.T.H., Siler, S., Ferrari, M., and Slotta, J.D. (1999). Why Students Fail to Learn Concepts of Complexity. Paper presented at the Annual Meeting of the American Educational Research Association, April 19-23; Montreal, Quebec, Canada.

- Cuthbert, A., Slotta, J.D., and Linn, M.C.L. (1999). Emergent structures for conversations and communities. Presentation to the annual workshop of the NSF Center for Innovative Learning Technologies, April 30 - May 2; San Jose, CA.
- Slotta, J.D., Jorde, D., and Stromme, A. (1999). Scaffolding Students' Use of Visualizations in a Web-based Curriculum. Presentation to the annual workshop of the NSF Center for Innovative Learning Technologies, April 30 - May 2; San Jose, CA.
- Slotta, J.D., Cuthbert, A., and Linn, M.C. (1999). Designing WISE Curriculum: How On-line Communities support the WISE-NASA Partnership. Presentation to the annual workshop of the NSF Center for Innovative Learning Technologies, April 30 - May 2; San Jose, CA.
- Slotta, J. D. (1999). A knowledge integration approach to professional development: Enabling teachers to succeed in adopting new practices. Paper presented in a panel at Ed Media 1999 entitled, Design of Web-based Learning Environments: Integrating curriculum, technology, and professional development approaches.
- Morrow, J. and Slotta, J.D. (1999). Hi Tech solutions for Low Tech classrooms. Paper presented in a panel at Ed Media 1999 entitled, Design of Web-based Learning Environments: Integrating curriculum, technology, and professional development approaches. Seattle, WA.
- Stromme, A., Jorde, D., & Slotta, J. D. (1999). Web-Based Integrated Science Environment (WISE) - Building bridges between American research and the Norwegian National Science Curriculum. Annual meeting of the International Organization of Science and Technology Education. June 26 - July 2, Durban, South Africa.
- Jorde, D. & Slotta, J.D. (1999): Web-Based Integrated Science Environment building bridges between American research and the Norwegian National Science Curriculum. Presented at European Science Education Research Association (ESERA) Kiel, Germany.
- Slotta, J.D. and Morrow, J. (1999). The Web-based Integrated Science Environment (WISE): Connecting to the World. Presentation to the Annual Meeting of the American Association for Computers in Education, WebNet 99. Honolulu, October 27 - November 2

• 1998 •

- Slotta, J. D. (1998). The Knowledge Integration Environment: Scaffolding Critical Questions in the Science Classroom. Paper presented at the annual meeting of the American Educational Research Association. San Diego, CA.
- Slotta, J. D. Dodson, K., and Marantz, J. (1998). Connecting school science with real science through Internet Resources: Partnerships in the Knowledge Integration Environment. Paper presented at the 1998 Annual Meeting of the National Association for Research in Science Teaching, April 19, 1998; San Diego, CA. San Diego, CA.
- Cuthbert, A., Chiao, Y., Estrada, C. Goff, M., Martin, B., Shah, S., & Slotta, S. Interactive Concurrent Design Environments: The Mars 2012 Pilot Study NASA Conference on Manned Missions to Mars. May 4, 1998; Houston, TX
- Gordin, D., Slotta, J. D., and Zaritsky, R. (1998). Science Visualizations to Learner Visualizations: Determining the Design Principles for Transformation. Tenth annual IEEE SuperComputing Conference. Nov. 8-12, 1998. Orlando, Florida.
- Slotta, J. D., Cotter, D, and Gordin, D. (1998) Leading Edge Technologies for Teachers. Tenth annual IEEE SuperComputing Conference. Nov. 8-12, 1998. Orlando, Florida

• 1988 - 1997 •

- Clark, D. B. and Slotta, J. D. (1997). Interpreting Evidence on the Internet: Sex, Lies, and Multimedia. Paper presented at the annual meeting of the American Educational Research Association. Chicago, IL
- Slotta, J. D. and Chi, M. T. H. (1997). Instruction for Conceptual Change: The Success Story of Ontology Training. Paper presented at the annual meeting of the American Educational Research Association. Chicago, IL
- Slotta, J. D. & Cuthbert, A. (1997). Applying a framework of conceptual change in the science classroom: Studies of knowledge integration. Proceedings of the annual meeting of the Cognitive Science Society, Stanford, CA.
- Slotta, J. D. and Chi, M. T. H. (1996). Understanding constraint-based processes: a precursor to conceptual change in physics. Paper presented at the Eighteenth Annual Cognitive Science Society Conference, San Diego, CA, July 12-17.
- Slotta, J. D., Chi, M. T. H., & Joram, E. (1992). An Underlying Materialistic Commitment in Naïve Thought: Preliminary findings in support of ontological classification. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- Slotta, J. D. (1992). The structure of naïve physics knowledge: Preliminary support of ontological categories. Paper presented at the annual University of Pittsburgh, Carnegie Mellon Graduate Student Conference.
- Zelaznik, H. N., Slotta, J. D., & Rosenbaum, D. A. (1989). The timing of negative acceleration: A new theory for the linear speed accuracy trade-off in aimed hand movements. Paper presented at the Annual Meeting of the North American Society for the Psychology of Sport and Physical Activity, Kent, OH, June 2-4.
- Slotta, J. D., Rosenbaum, D. A., & Vaughan, J. (1989). The utilization of energetics in movement planning. Paper presented at the Annual Meeting of the North American Society for the Psychology of Sport and Physical Activity, Kent, OH, June 2-4.
- Rosenbaum, D. A., Vaughan, J., Marchak, F., Barnes, H. J., Slotta, J. D., & Jorgensen, M. J. (1988). Grammar of action: I. Selecting grip patterns. Paper presented at the Annual Meeting of the Psychonomic Society, Chicago, IL, November 10-12.
- Vaughan, J., Rosenbaum, D. A., Slotta, J. D., Barnes, H. J., Marchak, F., & Jorgensen, M. J. (1988). Grammar of action: II. Selecting coordinative patterns of the arm, hand, and finger. Paper presented at the Annual Meeting of the Psychonomic Society, Chicago, IL, Nov. 10-12.

## **Service Activities**

### **Advisory Boards and Executive Committees**

- ASSISTments for Science; NSF DRK12 grant to Janice Gobert; advisory board, 2007 – present.
- KMDI CONCERT Academic Working Group, University of Toronto, 2006 – present.
- Knowledge Media Design Institute, University of Toronto. Executive Committee, since 2006.
- Project Open Source | Open Access; KMDI; Univ. of Toronto; committee member since 2005.

Collaborative Reasoning DOE Grant; Richard Anderson, PI; board member, 2003-2006.  
NIH: Frontiers of Physiology; Marsha Matyas, PI; advisory board member 2001-2005.  
NSF: Making Thinking Visible; Janice Gobert, PI; advisory board member, 2001-2005.  
Science Education Resource Center, Northfield, MN; Cathy Manduca, PI; Advisor since 2002.  
Educational Connections, Inc; board member 1999-2005.

### **Editorial Review:**

Journal of Research in Science Teaching: 2010 - present  
Journal of the Learning Sciences – Editorial Review Board, 2004 – present  
International Journal of Science Education (IJSE) Editorial Review Board, 2002 - present.  
Journal of Educational Psychology, 2007 – 2010.  
Journal of Research in Science Teaching - Occasional papers  
Cognition and Instruction – Occasional papers

### **Other Service Activities**

2009 – 2010. Served on the advisory committee for the 2010 meeting of the International Conference of the Learning Sciences (<http://www.isls.org/icls2010/>)  
2009- 2010. Served on the organizing committee for the 2010 meeting of the “cutting edge” workshop for complex systems in geoscience education (<http://serc.carleton.edu/NAGTWorkshops/complexsystems/workshop2010/index.html>)  
2008 – present. Founder and coordinator of Educoder: An educational network and community for technology designers and developers in the learning sciences.  
2008 – present. Member, Scientific Advisory Committee, The International Conference of the Learning Sciences, June 24 – 28. Utrecht, The Netherlands.  
2007 – present. Director of the Knowledge Media Design Institute (KMDI) collaborative program.  
2007 – 2010. Deputy director of the Knowledge Media Design Institute.  
2006. Served on a Ministry of Education e-learning Standards panel called e-Learning Standards Advisory Council of Canada, led by Robert Thivierge – including attending meetings and reviewing eLSACC report.  
2006 – 2009. Sakai Users’ Group (SUG) co-founder and chair. Sakai is an open source learning management system that promises to sustain a community of educators and technology developers.  
2006. Founder, Educational Network and Community for Open Resource Exchange (ENCORE – see <http://encorewiki.org>). This is an online community that supports the collaboration around and exchange of open source materials for learning science research.  
2005 – present. Member, various university and departmental committees, University of Toronto.  
2006. Section chair, Section 3 (Science) of Division C (Learning and Instruction) for the 2006 annual meeting of the American Educational Researchers Association (AERA), San Francisco, CA.  
2003-2007 Founding member, Network for Collaborative Inquiry Learning (NetCOIL). Developed open source community to support all NetCOIL members, as well as to serve as field-wide resource.

2003 – 2005. Founding member, Berkeley Learning Technologies (BLT) group, an interdepartmental group of researchers, administrators and technology staff from numerous programs on campus that are concerned with emerging learning technologies.

2003—2005. Program development within the Graduate School of Education, UC Berkeley, re-designed three technology-oriented courses for pre-service, masters and doctoral students

1999—2001. Founding member, the U.C. Berkeley Science Coalition Coordinating Committee, to coordinate K-12science outreach programs and projects across UC Berkeley campus (see <http://sciencecoalition.berkeley.edu/>).

1999—present. Grant proposal reviews for NSF: numerous review panels within the EHR division, as well as individual proposals by request.

### **Professional Affiliations:**

American Educational Research Association (AERA)

Canadian Society for the Study of Education (CSSE)

European Association for Research in Learning and Instruction (EARLI)

International Society of the Learning Sciences (ISLS).