

Samuel A. Rebelsky
Curriculum Vitae
5 November 2011

Organization of CV

Addresses: Office Address; Home Address; Electronic Addresses

Basic Information: Research Interests; Education; Dissertation; Professional Experience; Honors

Professional Activities: Affiliations; Journal Editorship/Refereeing; Conference Program Committees; Other Conference Activities; Grant Review Panels; Miscellaneous Activities

Publications: Journal Publications; Conference Papers; Books, Proceedings Editorship, and Chapters in Books; Conference Posters; Conference Presentations; Technical Reports; Miscellaneous Publications

Teaching: Undergraduate Computer Science; Graduate Computer Science; Undergraduate Mathematics/Statistics; Tutorial; Interdisciplinary; Continuing Education; Independent Study; Undergraduate Students Supervised

Research: Software Systems; Funding

Miscellaneous: Profiles in the Popular Press; Workshops Attended; College Service

Basic Information

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Research Interests

- *Functional Programming*, particularly the application of higher-order techniques to media computation.
- *Computer science education*, particularly the education of novices.
- *Computer-based education*, particularly the roles of hypermedia and multimedia in education.

Education

Ph.D.	Computer Science	University of Chicago	June 1993
S.M.	Computer Science	University of Chicago	March 1987
S.B. w/honors	Mathematics	University of Chicago	June 1985

Dissertation

Title Tours, A System for Lazy Term-Based Communication

Advisor Michael J. O'Donnell, University of Chicago

Professional Experience

University of Chicago

- *Lecturer*, Computer Science. 1985 to 1987.
- *Lecturer*, Mathematics. Summer 1986.
- *Research Assistant*, Michael J. O'Donnell. 1987 to 1993.
- *Instructor*, University of Chicago Publishing Program. 1990 to 1991.

Dartmouth College

- *Visiting Assistant Professor of Computer Science*. March 1993 to June 1997.
- *Assistant Director*. Dartmouth College Experimental Visualization Laboratory. January 1994 to June 1997.
- *Adjunct Assistant Professor*. Dartmouth College Department of Computer Science. June 1997 to June 2000.

Grinnell College

- *Assistant Professor*. August 1997 to August 2002.
- *Director*. Grinnell Laboratory for Interactive Multimedia Experimentation and Research. August 1997 to present.
- *Chair*. Technology Studies Concentration. July 2001 to August 2008.
- *Associate Professor*. August 2002 to June 2009.
- *Chair*, Grinnell College Science Division. August 2006 to August 2008.
- *Professor*. July 2009 to present.
- *Chair*. July 2010 to present.

Honors

- National Merit Scholarship, 1982.
- Dean's List, University of Chicago, 1982-83, 1984-85.
- Appointed founding member of SIGACT electronic publishing board, 1994.
- Award from Dartmouth Women in Science Program for Outstanding Contributions to Undergraduate

Education, 1995.

- Commendation from Dartmouth Women in Science Program for Continuing Commitment to Mentoring Women in Science, 1996.
- Outstanding paper award, EdMedia'96 World Conference on Multimedia and Hypermedia in Education, June 1996.
- Appointed founding member, Webnet Journal Editorial Review Board, February 1999.
- Nominated to Project Kaleidoscope Faculty for the Twenty-First Century, May 2000.
- Outstanding paper award, EdMedia 2000 World Conference on Educational Multimedia, Hypermedia, and Telecommunications, June 2000.
- Who's Who in America, 55th Edition, 2001.
- Who's Who in America, 56th Edition, 2002.
- Outstanding paper award, EdMedia 2002 World Conference on Educational Multimedia, Hypermedia, and Telecommunications, June 2002.
- Invited to join steering committee of the EdMedia series of conferences, May 2002. (Served three-year term, 2002-2005.)

Professional Activities

Affiliations

- Member of ACM (Association of Computing Machinery) since 1988. Currently in special-interest groups SIGCAS (Computer And Society), SIGCSE (Computer Science Education), SIGGRAPH (Computer Graphics), and SIGWEB (Hypertext).
- Member of AAUP (American Association of University Professors) since 1994.
- Member of AACE (Association for the Advancement of Computers in Education) 1995-2007.
- Member of SITI (Software and Information Technology of Iowa) (formerly Iowa Software Association) 1998-2003.
- Member of Internet Society 1998-2004.
- Member of CPSR (Computer Professionals for Social Responsibility) since 1999. (Lifetime member.)
- Member of the IEEE Computer Society since 1999.
- Member of CUR (Council on Undergraduate Research) since 2000.
- Member of EFF (Electronic Frontier Foundation) since 2003.

Journal Editorship

- Contributing Editor, *Journal of Universal Computer Science* (J.UCS), 1997-2006.
- Editorial Board, *Journal of Network and Computer Applications* (J.NCA), 2001-2005.
- Editorial Review Board, *Webnet Journal of Internet Technologies, Applications & Issues*, 2002-2004.
- Co-editor, *Journal of Multimedia Tools and Applications*, special issue on Electronic Multimedia Publishing, 6(2), 1998.

Conference Program Committees

Co-Chair

- DAGS95 Conference on Electronic Publishing and the Information Superhighway
- EdMedia 2002 World Conference on Educational Multimedia, Hypermedia, and Telecommunications

Steering Committee Member

- EdMedia World Conference on Educational Multimedia, Hypermedia, and Telecommunications (2002-2005)

Workshop/Tutorial Chair

- EdMedia (1996, 1997, 1998, 1999, 2000, 2001)
- Webnet World Conference of the WWW, Internet, and Intranet (1997, 1998, 1999, 2000, 2001)

Student Papers Chair

- Consortium for Computing in Small Colleges 1999 Midwest Symposium.

Program Committee Member

- ACM 1996 Conference on Multimedia.
- EdMedia (1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009)
- Webnet World Conference (1997, 1998, 1999, 2000, 2001)
- 2nd Forum on Parallel Computing Curricula, 1997.
- IEEE Multimedia Systems '99.
- Wide Web Conference (WWW8/User Interface Subcommittee, WWW9/Languages and Standards Subcommittee, WWW10/Mobility Subcommittee).
- E-Learn World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education (2002, 2003, 2004, 2005, 2006, 2007, 2008)
- DocEng, the ACM Symposium on Document Engineering (2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010)

Other Conference Activities

Referee

- International Conference on Rewriting Techniques and Applications (RTA-91/4th; RTA-93/5th).
- EdMedia '95 Conference on Educational Multimedia and Hypermedia.
- ACM SIGCSE Symposium on Computer Science Education (1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2012).
- ACM Conference on Innovation and Technology in Computer Science Education (2005, 2006, 2007, 2008, 2009, 2010, 2011).
- Central Plains Regional Conference of the Consortium for Computing in Small Colleges (1998, 2001).

- New England Regional Conference of the Consortium for Computing in Small Colleges (1998, 1999, 2000, 2001).

Electronic submissions coordinator

- DAGS95 (Dartmouth Institute for Advanced Graduate Studies Conference on Electronic Publishing and the Information Superhighway)
- FOCS'95 (IEEE Symposium on Foundations of Computer Science)
- STOC'95 (ACM Symposium on the Theory of Computing)
- SODA'96 (SIAM Symposium on Discrete Algorithms)

Associate Program Chair

- ACM SIGCSE Symposium on Computer Science Education (2011)

Grant Review Panels

- NSF Grant Review Panel (ILI: Instrumentation and Laboratory Improvement; Computer Science), January 1995, January 1996, January 1997.
- NSF Grant Review Panel (CCLI: Course, Curriculum and Laboratory Improvement; Interdisciplinary), July 1999, July 2000.
- NSF Grant Review Panel (CCLI: Course, Curriculum and Laboratory Improvement; Computer Science), January 2005, March 2006.
- NSF Grant Review Panel (CRI: Computing Research Infrastructure), November 2005.

Miscellaneous Activities

- SIGACT Electronic Publications Board, March 1994 to May 1998.
- Textbook reviewer (Introductory Computer Science, Introductory Programming, Programming Languages and Compilers, Multimedia/Hypermedia, Software Design, and other subjects), Addison-Wesley, Brooks Cole, CRC Press, International Thomson Press, Jones and Bartlett, PWS Publishing, Van Nostrand Reinhold, and West Educational Publishing, 1993 to present.
- Panel Chair, Grinnell College Fourth Annual Africana Studies Conference, April 20, 2000.
- Session Chair, Pew Midstates Symposium for Undergraduate Research in Physical Science and Mathematics, November 5, 2000.
- External Reviewer, Colorado College Department of Mathematics and Computer Science, March 2005.

Publications

* denotes an undergraduate co-author.

Journal Publications

- [A1] S. A. Rebelsky. "Designing Interactive Electronic Conference Proceedings." *IEEE Multimedia*, Summer, 1995, pp. 75-79.
- [A2] S. A. Rebelsky. "Evaluating and Improving WWW-Aided Instruction." *Journal for Universal Computer Science*, 2 (12), December 1996, pp. 829-841. An extended version of [B4] and [B6].
- [A3] J. Ford, F. Makedon, and S. A. Rebelsky. "Resource-Limited Hyper-Reproductions." *Journal of Multimedia Tools and Applications* 6(2), 1998, pp. 181-197.
- [A4] S. A. Rebelsky, F. Makedon, P. T. Metaxas, J. Ford, C. Owen, and P. Gloor. "The Roles of Video in the Design, Development, and Use of Interactive Electronic Conference Proceedings." *Journal for Universal Computer Science* 4 (6), June 1998, pp. 604-628. An earlier version of this work was published as Dartmouth College Department of Computer Science Technical Report PCS-TR94-241, November 1994.
- [A5] S. Luebke^{*}, H. Mason^{*}, and S. A. Rebelsky. "Annotating the World Wide Web." *CSS Journal* 7 (5), November/December 1999. Reprinted from [B14].

Refereed Conference Papers

- [B1] S. A. Rebelsky. "I/O trees and Interactive Lazy Functional Programming." In M. Bruynooghe and M. Wirsing (Eds.) *Programming Language Implementation and Logic Programming* (August 1992, Leuven Belgium), Lecture Notes in Computer Science #631, pp. 458-472. Berlin: Springer-Verlag, 1992. An earlier version of this work was published as [F3].
- [B2] F. Makedon, S. A. Rebelsky, M. Cheyney^{*}, C. Owen, and P. Gloor. "Issues and experiences with multimedia authoring." In T. Ottmann and I. Tomek (Eds.) *Proceedings of the 1994 World Conference on Educational Multimedia and Hypermedia* (Vancouver, BC, Canada, June 25-30, 1994), pp. 38-45. Charlottesville, VA: Association for the Advancement of Computing in Education, 1994. Invited paper.
- [B3] F. Makedon, J. W. Matthews, C. B. Owen, and S. A. Rebelsky. "Multimedia authoring, development environments, and digital video editing." In S. F. Lundstrom (Ed.) *SPIE Conference on Defining the Global Information Infrastructure, Boston, MA* (1-3 November 1994), Critical Reviews of Optical Science and Technology Volume CR56, pp. 297-320. Bellingham, WA: SPIE, 1994. Invited paper.
- [B4] S. A. Rebelsky. "A web of resources for introductory computer science." In I. Goldstein and J. Hardin (Eds.) *Proceedings of the 2nd International WWW Conference '94: Mosaic and the Web* (Chicago, IL, October 17-20, 1994), pp. 487-497. 1994.
- [B5] S. A. Rebelsky, J. Ford, K. Harker^{*}, F. Makedon, P. T. Metaxas, and C. Owen. "Interactive multimedia conference proceedings." In I. Katz, R. Mack, and L. Marks (Eds.) *CHI'95 Conference on Human Factors in Computing Systems Conference Companion* (Denver, Colorado, May 7-11, 1995), pp. 13-14. New York: Association for Computing Machinery, 1995. Formal/refereed presentation of electronic proceedings interface [S4].

- [B6] S. A. Rebelsky. "Improving WWW-Aided Instruction: A Report from Experience." In P. Carlson and F. Makedon (Eds.) *Proceedings of the EdMedia'96 Conference on Educational Multimedia and Hypermedia* (Boston, Massachusetts, June 17-23, 1996). Charlottesville, VA: Association for the Advancement of Computing In Education, 1996. Received Outstanding Paper award. Although the paper was inadvertently left out of the printed conference proceedings, it appear on pp. 103-108 of the electronic (CD-ROM) proceedings. An extended version of this paper appeared as [A2].
- [B7] S. A. Rebelsky. "How and Why to Teach Hypermedia in Introductory Computer Science Courses (short paper)." In P. Carlson and F. Makedon (Eds.) *Proceedings of the EdMedia'96 Conference on Educational Multimedia and Hypermedia* (Boston, Massachusetts, June 17-23, 1996), p. 802. Charlottesville, VA: Association for the Advancement of Computing In Education, 1996.
- [B8] J. Ford, K. Harker *, F. Makedon, P. T. Metaxas, C. Owen, and S. A. Rebelsky. "Eleven Lessons from the DAGS'93 Hypermedia Conference Proceedings (short paper)." In P. Carlson and F. Makedon (Eds.) *Proceedings of the EdMedia'96 Conference on Educational Multimedia and Hypermedia* (Boston, Massachusetts, June 17-23, 1996), p. 767. Charlottesville, VA: Association for the Advancement of Computing In Education, 1996.
- [B9] S. A. Rebelsky. "CourseWeaver: A Tool for Building Course-Based Webs." In T. Muldner and T. Reeves (Eds.) *Proceedings of the EdMedia'97 World Conference on Educational Multimedia and Hypermedia* (Calgary, Canada, June 14-19, 1997), pp. 881-886. Charlottesville, VA: Association for the Advancement of Computing In Education, 1997.
- [B10] S. A. Rebelsky. "In-Class Use of Course Webs." In T. Ottmann and I. Tomek (Eds.), *Proceedings of the EdMedia'98 World Conference on Educational Multimedia and Hypermedia* (Freiburg, Germany, June 20-27, 1998), pp. 1115-1120. Charlottesville, VA: Association for the Advancement of Computing In Education, 1998. Not presented.
- [B11] S. A. Rebelsky and C. de Beer *. "A Customizable Shorthand System for Hypertext Authoring." In H. Maurer and R. G. Olson (Eds.) *Proceedings of the Webnet '98 World Conference of the WWW, Internet, and Intranet* (Orlando, Florida, November 7-12, 1998), pp. 744-749. Charlottesville, VA: AACE, 1998.
- [B12] S. A. Rebelsky. "Issues in Site-Level Web Authoring." In H. Maurer and R. G. Olson (Eds.) *Proceedings of the Webnet '98 World Conference of the WWW, Internet, and Intranet* (Orlando, Florida, November 7-12, 1998), pp. 750-755. Charlottesville, VA: AACE, 1998.
- [B13] R. Becker *, K. McLaughlin *, and S. A. Rebelsky. "Project Clio: Tools for Tracking Student Use of Course Webs." In B. Collis and R. Oliver (Eds.), *Proceedings of the EdMedia 99 World Conference on Educational Multimedia, Hypermedia, and Telecommunications* (Seattle, Washington, June 19-24, 1999), pp. 981-986.
- [B14] S. Luebke *, H. Mason *, and S. A. Rebelsky. "Annotating the World Wide Web." In B. Collis and R. Oliver (Eds.), *Proceedings of the EdMedia 99 World Conference on Educational Multimedia, Hypermedia, and Telecommunications* (Seattle, Washington, June 19-24, 1999), pp. 409-414. Reprinted as [A5].

- [B15] C. Flynt and S. A. Rebelsky. "Real-World Program Design in CS2: The Roles of a Large-Scale, Multi-Group Class Project." In *Proceedings of the Thirty-First SIGCSE Technical Symposium on Computer Science Education* (Austin, Texas, March 8-12, 2000), pp. 192-196.
- [B16] J. Seaman^{*}, V. Venugopal^{*} and S. A. Rebelsky. "Building and Transforming Educational Web Sites with SATIRIC and Contextual Patterns." In J. Bourdeau and S. Heller (Eds.) *Proceedings of the EdMedia 2000 World Conference on Educational Multimedia, Hypermedia, and Telecommunications* (June 26-July 1, 2000, Montreal, Quebec, Canada), 1004-1009. Charlottesville, VA: AACE, 2000.
- [B17] C. Glynn^{*}, R. Heck^{*}, S. Luebke^{*}, W. Ma^{*}, H. Mason^{*}, E. Nichols^{*}, E. Raulerson^{*}, I. Staicut^{*}, and Samuel A. Rebelsky. "Blazing Trails on the World Wide Web". In J. Bourdeau and S. Heller (Eds.) *Proceedings of the EdMedia 2000 World Conference on Educational Multimedia, Hypermedia, and Telecommunications* (June 26-July 1, 2000, Montreal, Quebec, Canada), pp. 335-340. Charlottesville, VA: AACE, 2000. Received "outstanding paper" award.
- [B18] A. Kensler^{*} and S. A. Rebelsky. "Web Raveler: An Infrastructure for Transforming Hypermedia." In J. Bourdeau and S. Heller (Eds.) *Proceedings of the EdMedia 2000 World Conference on Educational Multimedia, Hypermedia, and Telecommunications* (June 26-July 1, 2000, Montreal, Quebec, Canada), 479-484. Charlottesville, VA: AACE, 2000.
- [B19] G. Fuller^{*}, J. Simonson^{*}, A. Tiwari^{*}, and S. A. Rebelsky. Clio's Assistants: A Tool Suite for Exploring Student Web Usage. In P. Barker and S. A. Rebelsky (Eds), *Proceedings of the EdMedia 2002 World Conference on Educational Multimedia, Hypermedia, & Telecommunications* (June 24-29, 2002; Denver, Colorado, USA), vol. 1, pp. 550-555. Norfolk, VA: Association for the Advancement of Computing in Education. 2002.
- [B20] A. Kmiec^{*}, M. P. Pinchback^{*}, and S. A. Rebelsky. Summarizing Links: Issues and Interfaces. In P. Barker and S. A. Rebelsky (Eds), *Proceedings of the EdMedia 2002 World Conference on Educational Multimedia, Hypermedia, & Telecommunications* (June 24-29, 2002; Denver, Colorado, USA), vol. 2, pp. 1005-1010. Norfolk, VA: Association for the Advancement of Computing in Education. 2002. Received Outstanding Paper award.
- [B21] S. A. Rebelsky. The New Science Students in *Too Much, Too Soon*: An Abbreviated, Accelerated, Constructivist, Collaborative, Introductory Experience in CS. In D. Baldwin and P. Tymann (Eds), *Proceedings of the Thirty-Sixth SIGCSE Technical Symposium on Computer Science Education* (February 23-27, 2005; St. Louis, MO, USA), pp. 312-316.
- [B22] D. Lindsey^{*} and S. A. Rebelsky. Clio's Worlds: 3D Visualizations of Student Web Usage. In P.A.M. Kommers and G. Richards (Eds), *Proceedings of the EdMedia 2005 World Conference on Educational Multimedia, Hypermedia, & Telecommunications* (June 27-July 3, 2005, Montreal, CA), pp. 1269-1278. Norfolk, VA: Association for the Advancement of Computing in Education. 2005.

- [B23] S. Martin^{*}, S. Nyombayire^{*}, C. Schmitz^{*}, and S. A. Rebelsky. Pedagogical Applications and Redesign of A Web Mediation Infrastructure. In P.A.M. Kommers and G. Richards (Eds), *Proceedings of the EdMedia 2005 World Conference on Educational Multimedia, Hypermedia, & Telecommunications* (June 27-July 3, 2005, Montreal, CA), pp. 1717-1724. Norfolk, VA: Association for the Advancement of Computing in Education. 2005.
- [B24] J. Davis and S. A. Rebelsky. Food-First Computer Science; Starting the First Course Right with PB&J. In Susan Rodger and J.D. Dougherty (Eds). *Proceedings of the 38th SIGCSE Technical Symposium on Computer Science Education* (March 7-10, 2007, Covington, KY), pp. 372-376. New York, NY: Association for Computing Machinery. 2007.
- [B25] S. Berg, J. Davis, and S. A. Rebelsky. MediaScripting: Introductory Computer Science with a Free and Open-Source Graphics Application. *Free and Open Source Software (FOSS) Symposium 2009: Integrating FOSS into the Undergraduate Computing Curriculum*. (March 4, 2009, Chattanooga, TN).

Books, Proceedings Editorship, Chapters in Books, and Textbooks

- [C1] J. Ford, F. Makedon, S. A. Rebelsky (editors). *Electronic Publishing and the Information Superhighway*. Boston, MA: Birkhauser, 1995.
- [C2] J. Ford, P. Gloor, F. Makedon, and S. A. Rebelsky (editors). *Electronic Publishing and the Information Superhighway*. Addison-Wesley, 1996. A networked hypermedia conference proceedings.
- [C3] J. Ford, F. Makedon, C. Owen, and S. A. Rebelsky. "Interactive Multimedia Publishing Systems." In B. Furht (Ed.), *Multimedia Tools and Applications*, 359-392. Boston, MA: Kluwer Academic Publishers. 1996.
- [C4] F. Makedon and S. A. Rebelsky (editors). *Electronic Multimedia Publishing: Enabling Technologies and Authoring Issues*. Boston, MA: Kluwer Academic Publishers. 1998.
- [C5] S. A. Rebelsky, J. Ford, F. Makedon, and C. Owen. "Multimedia Publishing Systems." Chapter 21 of B. Furht (Ed.), *Handbook of Internet and Multimedia Systems and Applications*, pp. 457-482. CRC and IEEE Press. 1998.
- [C6] S. A. Rebelsky. *Experiments in Java*. Reading, MA: Addison-Wesley. 2000.
- [C7] P. Barker and S. A. Rebelsky (Eds). *Proceedings of the EdMedia 2002 World Conference on Educational Multimedia, Hypermedia, & Telecommunications*. Norfolk, VA: Association for the Advancement of Computing in Education. 3 volumes. 2002.
- [C8] P. Barker and S. A. Rebelsky (Eds.) *Abstracts: EdMedia 2002 World Conference on Educational Multimedia, Hypermedia, & Telecommunications*. Norfolk, VA: Association for the Advancement of Computing in Education. 2002.

Refereed Conference Posters

- [D1] M. P. Pinchback^{*}, R. Stoltzfus^{*}, A. Tiwari^{*}, and S.A. Rebelsky. Clio's Intuition: Using Data Mining to Find Patterns of Student Web Usage. Poster. EdMedia 2002 World Conference on Educational Multimedia and Hypermedia (June 24-29, Denver, Colorado).
- [D2] A. Kmiec^{*}, J. Koomjian^{*}, D. Lindsey^{*}, and S.A. Rebelsky. Clio's Worlds: Three-Dimensional Visualizations of Student Web Usage. Raveling the Web: Mediating Interactions Between Browsers and Servers. Poster. EdMedia 2002 World Conference on Educational Multimedia and Hypermedia (June 24-29, Denver, Colorado).
- [D3] K. Armah^{*}, G. Fuller^{*}, T. Hew^{*}, C. Khannabha^{*}, D. Ofori-Addo^{*}, and S. A. Rebelsky. Raveling the Web: Mediating Interactions Between Browsers and Servers. Poster. EdMedia 2002 World Conference on Educational Multimedia and Hypermedia (June 24-29; Denver, Colorado).
- [D4] S. A. Rebelsky. The MERITs of Computer Science: Attracting Women to Computer Science Through Mentored Early Research in Teams. Poster. Pew Conference on Attracting and Retaining Majors. (March 2003; Chicago, IL, USA).
- [D5] Samuel A. Rebelsky, Ian Lunderskov^{*}, Ian Young^{*}, and Luis Zuleta-Benavides^{*}. Functional Video Programming: Computing with Time-Based Media and the Functional Paradigm. In Susan Rodger and J.D. Dougherty (Eds), *Proceedings of the 38th SIGCSE Technical Symposium on Computer Science Education* (March 7-10, 2007, Covington, KY).
- [D6] Samuel A. Rebelsky. Building Games with a Purpose: A Different Kind of Interdisciplinary Game Design. In Sue Fitzgerald and Mark Guzdial (Eds), *Proceedings of the 39th SIGCSE Technical Symposium on Computer Science Education* (March 12-15, 2008, Portland, OR).

Conference Presentations

This list does not include the presentations that correspond to the conference papers and posters listed above.

- [E1] "Developing an interactive interface for equational logic programs." Spring 1988 meeting of the Midwest Society for Programming Languages and Systems. Published as technical report [F1].
- [E2] "Extensions to equational logic programming: converting to constructor systems and default patterns." Autumn 1991 meeting of the Midwest Society for Programming Languages and Systems.
- [E3] "Interactive electronic proceedings." 1994 DAGS Symposium on Parallel Programming and Problem-Solving Environments, Hanover, NH, July, 1994. Invited talk.
- [E4] "CD-ROM and Beyond." Vox Clamantis in Cyberspace: Life in the Information Age. NY, NY, October 22, 1994. Invited talk.

- [E5] S. A. Rebelsky (Moderator), R. B. Allen, F. Baker, R. Mack, and C. Owen. "Perils and pitfalls of electronic conference proceedings." Panel, DAGS95 Conference on Electronic Publishing and the Information Superhighway, May 31-June 2, 1995.
- [E6] "JavaScripting for Interactive Educational Webs." Tutorial, EdMedia 1997 World Conference on Educational Multimedia and Hypermedia, June, 1997.
- [E7] "Designing and Building Course-Based Webs." Tutorial, EdMedia 1997 World Conference on Educational Multimedia and Hypermedia, June, 1997.
- [E8] H. Hart (Moderator), J. Caristi, D. Hamilton, C. Haynes, and S. A. Rebelsky. "The Future of Programming in Computer Science Education." Panel, SIGCSE'98 Conference on Computer Science Education, February 26 to March 1, 1998.
- [E9] "Designing and Building Course Webs with Site-Level Authoring Tools." Seminar, SIGCSE'98 Conference on Computer Science Education, Atlanta, GA, February 26 to March 1, 1998.
- [E10] "An Overview of Site-Level Authoring Tools for Course Webs." Seminar, Consortium for Computing in Small Colleges 1998 Midwest Conference, Spring Arbor, MI, September 25-26, 1998. A revised version of [E9].
- [E11] "An Overview of Site-Level Authoring Tools". Tutorial presented on November 7, 1998 at Webnet 98, the World Conference of the Internet, Intranet, & WWW (Orlando, FL).
- [E12] "An Introduction to Java". Tutorial presented on November 8, 1998 at Webnet 98, the World Conference of the Internet, Intranet, & WWW (Orlando, FL).
- [E13] "Teaching Algorithmic Multimedia." Iowa Undergraduate Computing Consortium, Grinnell, IA, March 6, 1999.
- [E14] "Designing Course Webs with Site-Level Authoring Tools." Tutorial presented on June 19, 1999 at EdMedia World Conference on Educational Multimedia, Hypermedia, and Telecommunications (Seattle, Washington). A combination of [E10] and [E11].
- [E15] "An Introduction to Java." Tutorial presented on June 19, 1999 at EdMedia World Conference on Educational Multimedia, Hypermedia, and Telecommunications (Seattle, Washington). A revised version of of [E12].
- [E16] "Teaching Differently: The Web, Technology, and Liberal Arts Education." Invited talk presented on June 13, 2001 at the Grinnell College Symposium on Teaching with Technology Across the Liberal Arts.
- [E17] "Future Campus Computing Horror Stories." Keynote talk presented on July 9, 2003 at the Iowa Instructional Technology Services symposium.
- [E18] "Bridging Quantitative Literacy and Information Literacy: An Illustrative Instance of Inappropriately Inaccurate Information on the Internet: Genome-Related Patents." Presented on January 31, 2004 at the Pew Workshop on Quantitative Literacy Across the Curriculum. Based on [H13].

- [E19] “Teaching Students the Rhetoric of Hypertext.” Invited talk as part of a series of talks for the opening of the Grinnell College Technology Discovery Center. Presented 18 February 2004.
- [E20] “MediaScripting: Media Computation with Functional Programming, Scripting, and Design Principles.” Invited presentation for NSF Showcase. March 11, 2010.

Technical Reports

- [F1] S. A. Rebelsky and D. J. Sherman. “Developing an interactive interface for equational logic programs.” University of Chicago Department of Computer Science Technical Report 90-05, February, 1990.
- [F2] S. A. Rebelsky. “An Introduction to Tours, a protocol for demand-driven communication of terms.” University of Chicago Department of Computer Science Technical Report CS91-28, November, 1991.
- [F3] S. A. Rebelsky. “I/O Trees and I/O support for equational logic programming.” University of Chicago Department of Computer Science Technical Report CS92-03, January, 1992. A revised version of this report was published as [B1].
- [F4] S. A. Rebelsky. “Tours, a system for lazy term-based communication.” University of Chicago Department of Computer Science Technical Report CS93-06, June, 1993. Doctoral dissertation.
- [F5] S. A. Rebelsky. “Incremental equational programming.” Dartmouth College Department of Computer Science Technical Report PCS-TR94-240, November, 1994.
- [F6] S. A. Rebelsky, J. Ford, K. Harker^{*}, F. Makedon, P. T. Metaxas, and C. Owen. “The design and development of interactive multimedia conference proceedings.” Dartmouth College Department of Computer Science Technical Report PCS-TR-239, November, 1994. Describes software system [S4].

Miscellaneous Publications

- [H1] S. A. Rebelsky. “Electronic publishing on the World Wide Web: comments and criticisms.” Invited article for *Interface: Computing News of Dartmouth College*, Winter 1995 issue.
- [H2] S. A. Rebelsky. “Developing electronic conference proceedings in the DEVLAB.” Invited article for *Interface: Computing News of Dartmouth College*, Winter 1995 issue.
- [H3] The SIGACT Electronic Publishing Board (S. A. Rebelsky, F. Makedon, D. Karger, P. T. Metaxas, C. Owen, I. Parberry, and S. Tate). “Information about FOCS’95 electronic submissions.” *SIGACT News* 26 (1), pp. 58-62, March, 1995.
- [H4] J. Ford, F. Makedon, and S. A. Rebelsky. “Electronic publishing: multiple perspectives from diverse communities.” Introduction to *Electronic Publishing and the Information Superhighway* [C1]. 1995.

- [H5] F. Makedon and S. A. Rebelsky. "Enabling technologies for electronic publishing." Introduction to special issue of *Journal of Multimedia Tools and Applications* on Electronic Publishing 6(2). 1998.
- [H6] S. A. Rebelsky. "An Overview of Site-Level Authoring Tools for Course Webs." Abstract of seminar [E8]. *The Journal of Computing in Small Colleges* 14(1), November 1998.
- [H7] S. A. Rebelsky. "Conference Report: EdMedia'99 World Conference on Educational Multimedia, Hypermedia, and Telecommunications." *Educational Technology Review*, Autumn/Winter 1999, pp. 34, 37.
- [H8] S. A. Rebelsky. Untitled statement on involving women in computer science. *Project Kaleidoscope Faculty for the 21st Century: A Collection of Statements, 2000-2001*. Washington, DC: Project Kaleidoscope. One page.
- [H9] S. A. Rebelsky (Arranger), P. B. Henderson, A. N. Kumar, and F. N. Springsteel. "Why I Do Declare! Declarative Programming in the Undergraduate Curriculum". In Walker, H. (Ed.) *Proceedings of the Thirty Second SIGCSE Technical Symposium on Computer Science Education* (February 21-25, 2001, Charlotte, NC, United States). New York, NY: ACM. Panel summary.
- [H10] P. Barker and S. A. Rebelsky. Preface to the *Proceedings of the EdMedia 2002 World Conference on Educational Multimedia and Hypermedia*.
- [H11] S. A. Rebelsky. "Reviewing for EdMedia". 4 pages. Available at <http://www.cs.grinnell.edu/~rebelsky/EdMedia/reviewing.pdf>.
- [H12] S. A. Rebelsky and J. Green (Eds). *Owning Bits: Intellectual Property in the Information Age*, Volume 1. Grinnell, Iowa: Glimmer Press (self-published). 2003.
- [H13] S. A. Rebelsky and J. Green. An Illustrative Instance of Inappropriately Inaccurate Information on the Internet: Genome-Related Patents. In *Owning Bits: Intellectual Property in the Information Age*, pp. 211-218. 2003.
- [H14] S. A. Rebelsky (moderator), R. Brown, J. Davis, and B. Harvey. "Whither Scheme? 21st Century Approaches to Scheme in CS1". In *Proceedings of the 40th ACM Technical Symposium on Computer Science Education* (Chattanooga, TN, USA, March 04 - 07, 2009), pp. 51-52. SIGCSE '09. ACM, New York, NY, 551-552. DOI=<http://doi.acm.org/10.1145/1508865.1509055>. Panel summary.
- [H15] M. Guzdial (moderator), D. Ranum, B. Miller, B. Simon, B. Ericson, S. A. Rebelsky, J. Davis, D. Kumar, and D. Blank. "Variations on a theme: role of media in motivating computing education". In *Proceedings of the 41st ACM Technical Symposium on Computer Science Education (SIGCSE '10)*. ACM, New York, NY, USA, pp. 66-67. DOI=10.1145/1734263.1734287.
- [H16] D. D. Garcia (moderator), Z. Doggs, T. Huang, and S. A. Rebelsky. "Teaching tips we wish they'd told us before we started, small college class edition". In *Proceedings of the 42nd ACM Technical Symposium on Computer Science Education (SIGCSE '11)*. ACM, New York, NY, USA, pp. 317-318. DOI=10.1145/1953163.1953257.

Teaching

Undergraduate Computer Science

Computer Networks

Dartmouth College. Spring 1996.

Grinnell College. Spring 2000.

Concepts in Computing (Computer Science for Nonmajors)

Dartmouth College. Summer 1993, Winter 1994, Summer 1994, Summer 1995, Winter 1997.

Implementation of Programming Languages (Compilers)

Dartmouth College. Spring 1993, Spring 1995.

Grinnell College. Fall 1998, Spring 2001, Fall 2002, Spring 2004, Fall 2011.

Introduction to Computer Programming in Pascal

University of Chicago. Winter 1986, Spring 1986, Fall 1986, Winter 1987.

Introduction to Computer Science I

Grinnell College (Scheme/Functional). Fall 2000, Spring 2001, Fall 2002, Spring 2003, Fall 2003, Fall 2006, Spring 2007, Fall 2007, Spring 2008, Fall 2009, Spring 2010.

Introduction to Computer Science I.5 (Imperative Programming, Memory Management, Programming Tools, Simple Data Structures)

Grinnell College (C/Imperative) Fall 2010, Spring 2011.

Introduction to Computer Science II (Data Structures and Algorithms)

University of Chicago (Pascal/Imperative). Spring 1987.

Grinnell College (Java/Object-Oriented). Fall 1997, Spring 1998, Spring 1999, Fall 1999, Spring 2000, Fall 2000, Fall 2004, Spring 2005, Fall 2005, Spring 2006.

Introduction to Computer Science I&II (Accelerated Combined Course)

Grinnell College. Spring 2003, Spring 2004.

Introduction to Computer Science III (Data Representation, Storage Management, Etc.)

Grinnell College. Spring 2003.

Operating Systems

Dartmouth College. Fall 1995.

Principles of Programming Languages

Dartmouth College. Winter 1994, Winter 1995, Winter 1997.

Grinnell College. Spring 1998, Spring 1999, Spring 2005, Spring 2006, Spring 2007, Spring 2011.

Problem Solving and Computing (Introductory Mathematics and Computer Science for Novices)

Grinnell College. Spring 1998.

A Social and Algorithmic Overview of Computer Science

Grinnell College. Spring 2000.

Software Design

Grinnell College. Fall 1997, Fall 2004, Spring 2010.

Web and Database Application Development

Grinnell College. Fall 2010.

Graduate Computer Science

Programming and Computing Systems II (Programming Language Paradigms and Implementation)
Dartmouth College. Spring 1994, Spring 1995, Spring 1996.

Undergraduate Mathematics and Statistics

Calculus I

University of Chicago. Summer 1986.

Calculus II

University of Chicago. Summer 1985, Summer 1986.

Introductory Statistics

Grinnell College. Spring 2008.

Tutorial (First-Year Seminar)

Hypermedia: Some Technology, Some Implications

Grinnell College. Fall 1999 (with R. Stuhr).

Owning Bits: Intellectual Property in the Information Age

Grinnell College. Fall 2003.

Onerous Ownership? Intellectual Property in the Twenty-First Century

Grinnell College. Fall 2005.

Freedom and Authority on the Internet: Conflict, Community, and Control

Grinnell College. Fall 2007.

Owning the Intangible. Intellectual Property in the Twenty-First Century.

Grinnell College. Fall 2010.

Interdisciplinary

Evolution of Technology

Grinnell College. Spring 2004, Spring 2005, Spring 2010.

Bioinformatics

Grinnell College. Fall 2009 (with Vida Praitis), Fall 2011 (with Vida Praitis).

Continuing Education

Electronic Publishing

University of Chicago Publishing Program. 1990.

Introduction to PageMaker

University of Chicago Publishing Program. 1991.

Introduction to HTML Authoring

Dartmouth Institute for Advanced Graduate Studies. June 1995.

A Short Introduction to JavaScript

Informal Colloquia, Dartmouth College. April-May 1996.

JavaScript for Interactive Educational Course Webs

EdMedia'97 World Conference on Multimedia and Hypermedia in Education. June 1997.

Design for Course Webs

EdMedia'97 World Conference on Multimedia and Hypermedia in Education. June 1997.

An Overview of Site-Level Authoring Tools for Course Webs

CCSC:MW'98 Consortium for Computing at Small Colleges:Midwest Fall 1998 Conference.

EdMedia'99 World Conference on Educational Multimedia and Hypermedia. Presented June 19, 1999.

An Overview of Site-Level Authoring Tools

Webnet 98, the World Conference of the Internet, Intranet, & WWW. Presented November 7, 1998.

An Introduction to Java

Webnet 98, the World Conference of the Internet, Intranet, & WWW. Presented November 8, 1998.

EdMedia'99 World Conference on Educational Multimedia and Hypermedia. Presented June 19, 1999.

MediaScripting: Media Computation In Context

SIGCSE 2009 Technical Symposium on Computer Science Education. Presented March 6, 2009

Independent Study

Educational Computing

Dartmouth College. Fall 1993.

Compilers

Dartmouth College. Spring 1994.

Advanced Topics in Computing

Dartmouth College. Spring 1995.

Programming for the Web

Dartmouth College. Winter 1997.

Human Factors

Grinnell College. Fall 1997.

Designing Educational Multimedia Exercises for Introductory Computer Science

Grinnell College. Spring 1998.

Blazing Trails on the World Wide Web

Grinnell College. Fall 1999.

Hypermedia

Grinnell College. Fall 1999.

Computer Game Design and Implications

Grinnell College. Spring 2000.

Advanced Web Techniques

Grinnell College. Fall 2000.

Web Software Engineering

Grinnell College. Spring 2001.

Hypermedia Literature

Grinnell College. Fall 2002.

CARD: The Computer-Assisted Room Draw

Grinnell College. Spring 2003.

Automating Hypertext Glossaries

Grinnell College. Spring 2003.

Internet Censorship in China

Grinnell College. Spring 2003.

Robotic Art

Grinnell College. Fall 2003.

Technology of the Poll Vault (co-supervised)

Grinnell College. Spring 2004.

A Parallel Compiler for Functional Languages

Grinnell College. Spring 2005.

Human-Computer Interaction

Grinnell College. Spring 2005.

Developing Laboratories for Programming Languages

Grinnell College. Fall 2005.

ActionScript

Grinnell College. Spring 2007.

Language Design in Virtual Worlds.

Grinnell College. Spring 2007.

Undergraduate Students Supervised, Grinnell College

- A Customizable Shorthand System for Hypertext Authoring (1 student, Spring, 1998).
- Clio - A System for Analysis of Student Web Usage; A System for Web Annotations (4 students, Summer 1998).
- Algorithm Animation (1 student, Summer 1998).
- Experiments in Page Analysis and Proxy Servers (2 students, Spring 1999).
- Trailblazing - Building Trails on the World Wide Web (4 students, Fall 1998 to Spring 1999).
- Tools for Interactive Web Creation and Manipulation (5 students, Summer 1999).
- Blazing Trails on the World Wide Web (6 students, Fall 1999 to Spring 2000; 3 received independent study credit)
- Project Clio: A History Mechanism for the World Wide Web (3 students, Summer 2000).
- Web Raveler (3 students, Summer 2000)
- Static Locations in Dynamic Documents (1 student, Summer 2000)
- Annotating the Web (3 students, Summer 2001)
- Project Clio (3 students, including one not-for-credit, Summer 2001)
- Web Raveler (2 students, Summer 2001)
- Clio's Worlds: 3D Visualizations of Student Web Usage (4 students, including two not-for-credit, Summer 2002)
- Clio's Intuition: Data Mining of Student Web Usage Logs (3 students, Summer 2002)
- Web Raveler: Mediating Web Services (5 students, including three not-for-credit, Summer 2002)
- Visualizing Web Usage Logs (3 students, Summer 2003)
- Mediating the Web (3 students, Summer 2003)
- Course Spinner: Tools for Building Advanced Course Webs (6 students, including 5 not-for-credit, Summer 2003)
- FreeDWeb: A Peer-To-Peer Web Server (3 students, Summer 2004)
- Web Raveler: Mediating Web Services (3 students, Summer 2004)
- Software to Support Meeting Scheduling (3 students, Summer 2004)

- Games for Learning Statistics (3 students, Summer 2006, co-supervised with Shonda Kuiper)
- Functional Raster Graphics (4 students, Summer 2006)
- Functional Video Scripting (3 students, Summer 2006)
- Functional 3D Graphics (2 students, Summer 2006)
- Functional Media Programming (6 students, Summer 2007)
- StatsGames: Games for Exploring Multivariate Statistics (4 students, Summer 2009, co-supervised with Shonda Kuiper)
- Interactive Application Scripting (4 students, Summer 2009)
- Media Scripting (9 students, Summer 2011)

Research

Software Systems

- [S1] *Equational Compiler for Sun Workstations*. Reimplementation of compiler for equation-based declarative language. Written in T (a LISP dialect) to generate 68000 code. 1987-1988.
- [S2] *Tours: A System for Term-Based I/O*. A generic incremental, demand-driven, term-based communication system. Used as new I/O system for Equational programming system and provides interoperability between declarative and imperative programs. 1990-1993. Described in [F4].
- [S3] *Software for Introductory Computer Science*. Includes assembly code "interpreter," HTML editor, animated sorting and searching algorithms, HyperCard stack templates, HyperCard-based hypertext guide to computer jargon, sample games, and an electronic blackboard. Written in HyperCard and JavaScript. 1993-1998.
- [S4] *DAGS Multimedia Proceedings*. Complete redesign and reimplementation of sophisticated interface for electronic proceedings that include both talks (audio, video, and slides) and papers. 1994-1996. (Described in [A4], [B5] and [F6]).
- [S5] *Electronic Conference Submissions Server*. Developed in Perl for STOC'95 and other conferences. 1994-1998. Used for a number of conferences, including ACM Symposium on the Theory of Computation, IEEE Symposium on Foundations of Computer Science, and SIAM Symposium on Discrete Algorithms In 1998, it was used for at least a dozen conferences.
- [S6] *CourseWeaver*. A hypermedia system for designing and building reconfigurable course webs. Automates many steps in the construction and reconstruction of course webs. Also permits multiple "views" of the same data (web-based, stand-alone, or grouped for printing) and allows the instructor to organize the same data in many ways. 1995-1996. (Described in [B9]; precursor to [S7].)
- [S7] *Site Weaver*. A collection of tools for building hypermedia documents, particularly course webs. Includes a shorthand system for converting documents between formats. 1997-2006. (The original shorthand system is described in [B11].)

- [S8] *Web Raveler*. A system for customizing views of the Web. Includes an annotation system, a trail system, and a number of other page mediators. 1997-2006. (The original system is described in [B13]; a revised system is described in [B18], [D3], and [B23]; a prototype annotation system is described in [B14]; a prototype trail system is described in [B17]; a prototype link summary system is described in [B20].)
- [S9] *Project Clio*. A system for tracking student use of course webs. 1997-2006. (A prototype of the system is described in [B13]; visualization tools are described in [B19], [B22], and [D2]; a data-mining tool is described in [D1].)
- [S10] *DrFu + Higher Order Graphics*. A collection of extensions to the GNU Image Manipulation Program (GIMP) to support higher-order manipulation of images. 2005-2007. Precursor to [S12].)
- [S11] Phoenix. A nonlinear video editing system which emphasizes script-based editing using Scheme. 2006-2009. A preliminary version is described in [D5].
- [S12] IAScript/MediaScript. An interactive scripting system with support for multiple languages (including Scheme and Python) and extensions for multiple platforms (including GIMP and InkScape). 2007-present.

External Funding

- *Extending Introductory Computer Science with Algorithmic Multimedia*. NSF Instrumentation and Laboratory Improvement Grant DUE #98-50546. \$33,600.
- *Trailblazing Tools for the World Wide Web*. The CRA Collaborative Research Environment for Women in Undergraduate Computer Science and Engineering Program. \$3,400. September 1998 to May 1999. Samuel A. Rebelsky (Faculty Sponsor). Rachel Heck, Sarah Luebke, Weichao Ma, and Hilary Mason (Students). July 1998 to June 2000. Extended to June 2001. Samuel A. Rebelsky (PI), John D. Stone (Co-PI), and Henry M. Walker (Co-PI).
- Smarter Kids Foundation. Approximately \$2000. Winter 1999. Samuel A. Rebelsky (PI).
- Travel grant to bring students to EdMedia 2000 World Conference on Educational Multimedia and Hypermedia. Approximately \$5000. Summer 2000. Iowa Computer Science Preparing Future Faculty Consortium using funds from a National Science Foundation program.
- Associated Colleges of the Midwest (ACM) Faculty Career Enhancement (FaCE) Grant. Provided \$3000 to support attendance at SIGGRAPH and related conferences. May 2006-August 2006.
- *Reformulating Media Computation with Functional Programming, Scripting, and Design Principles*. National Science Foundation Course, Curriculum, and Laboratory Improvement (CCLI) grant 0633090. \$148,763. May 2007 to July 2009. Samuel A. Rebelsky (PI), Janet Davis (Co-PI), Matthew Kluber (Co-PI).

Miscellaneous

Editorials

Drink Responsibly. *The Scarlett and Black* Volume 122, Issue 9, November 11, 2005.

Upcoming Faculty Legislation. *The B&S* Volume 6, Issue 4, May 2006.

Respecting Spaces and Supporting Community. *The Scarlett and Black* Volume 124, Issue 20, April 4, 2008.

Profiles in the Popular Press

EOT-PACI Program Participants Receive EdMedia 2000 Award: CRE-W Students Explore “Trail Blazing” in Their Award-Winning Paper. *NPACI & DSC Online*, Volume IV Issue 16, August 9, 2000.

A short article reporting on my Collaborative Research Experience for Undergraduate Women students whose work with me [B17] won an outstanding paper award at the EdMedia 2000 conference.

A Community of Research. *The Grinnell Magazine*, Fall 2002, p. 20.

A short article profiling my students’ summer research, emphasizing the group’s trip to the EdMedia 2002 World Conference on Educational Multimedia, Hypermedia, and Telecommunications.

A Day in the Life of Sam Rebelsky. *The Scarlet and Black*, April 11, 2003, pp. 11-12.

One in a series of short profiles of what members of how members of the Grinnell community spend their days.

Owning Bits: From First-year Tutorial to Book. *The Grinnell Magazine*, Spring 2004, p. 27.

A short description of a seminar I held for students on intellectual property.

Workshops Attended

This listing reflects only workshops attended since September 1997, and only some of those workshops. It may also include a few upcoming workshops.

- Pew Midstates Science and Mathematics Consortium workshop for Young Science Faculty. October 10-12, 1997.
- SIGCSE 1998 Conference on Computer Science Education. Attended workshops on Adaptive Hypermedia, Ada, Case Studies, and Quantitative Evaluation in Teaching Research. February 26 to March 1, 1998.
- Grinnell World Wide Web Workshop. Grinnell College. July 13-17, 1998. Faculty facilitator.
- Grinnell Oral Skills Workshop. Grinnell College. June 8-12, 1998.
- Grinnell Hypermedia Studies Workshop. Grinnell College. July, 1998. Workshop leader.
- Grinnell Writing Workshop. Grinnell College. August, 1998.
- Linear Algebra in Maple Project (LAMP) Workshop. Grinnell College. January 18-19, 1999.
- Dr. Syntax (Writing Workshop). Grinnell College. April 29 and May 24-28, 1999.
- Mellon/Culpeper Technology and Pedagogy Workshop. Grinnell College. June 28-29, 1999.
- Grinnell College Writing Assessment Workshop. Grinnell College. July 1999.
- Grinnell College Computer Science Assessment Workshop. Grinnell College. August 1999.
- Grinnell College Blackboard Workshop. Grinnell College. January 2001.
- Grinnell College Web Design Workshop. Grinnell College. January 2001.
- Grinnell College Lilly Spirituality Workshop. Grinnell College. May 2001. Grinnell College. August 2001.

- Grinnell College Computer Science Assessment Workshop.
- Grinnell College GIS Workshop. Grinnell College. March 2003.
- Pew Midstates Mathematics and Science Consortium Workshop on Attracting and Retaining Majors. Chicago. March 2003.
- Teaching Introductory Statistics Workshop. Grinnell College. May 2003.
- Roots of Renewal: Prairie Studies and the Arts. Grinnell College. June 2003.
- Roy J. Carver Trust Integrating Technology into the Classroom Workshop. Grinnell College. June 2003.
- Computational Solutions to Biological Problems. Washington University, St. Louis. June 2003.
- Iowa Instructional Technologies Symposium. Grinnell College. July 2003.
- Grinnell College Case Studies Writing Workshop. Grinnell College. August 2003.
- Liberal Arts Education Workshop. Grinnell College. May 2004.
- Teaching Computer Science Through Multimedia. SIGCSE Symposium. February 2005.
- Incorporating Hands-On Activities in Computer Science. SIGCSE Symposium. February 2005.
- Student Mentoring Workshop. Grinnell College. May 2005.
- Communication Skills Workshop. Grinnell College. May 2005. Faculty leader.
- DNA Land. SIGCSE Symposium. March 2006.
- Department Chairs Workshop. SIGCSE Symposium. March 2007.
- Lego Mindstorms. SIGCSE Symposium. March 2007.
- Technology Studies Workshop. Grinnell College. June 2007. Faculty leader.
- Bioinformatics Workshop. Grinnell College. July 2007.
- Midstates Consortium Mid-Career Faculty Workshop. Macalester College. February 2008.
- Teaching and Building Humanitarian Open Source Software. SIGCSE Symposium. March 2008.
- Computer Science Unplugged. SIGCSE Symposium. March 2008.
- Introduction to GIS, Map Servers, and Mashups. SIGCSE Symposium. March 2008.
- Interdisciplinary Science. Grinnell College. Fall 2008.
- Writing Computer Books. SIGCSE Symposium. March 2009.
- Motivating Computer Science Students with Digital Sound and Music. SIGCSE Symposium. March 2009.
- Portfolio Workshop. Grinnell College. Summer 2010.
- Assessment Workshop (Co-Chair). Grinnell College. Summer 2011.
- Portfolio Workshop. Grinnell College. Summer 2011.
- Mentoring Workshop. Grinnell College. Summer 2011.

College Service, Grinnell

- Design of new Computer Science Curriculum (with Henry Walker, John Stone, Gene Herman, and other members of the Department of Mathematics and Computer Science). Fall 1997.
- Coordinator, Young Science Faculty Reading Group. Fall 1998 to Spring 1999.
- Faculty Retreat. January 1998.
- AIRE Proposal Committee. January 1998 to June 1998.
- Sherman Fairchild Proposal Committee. March 1998 to July 1998.
- Excellence Groups on Interdisciplinary Studies, Support for Faculty Research, Technology, and Teaching. Spring 1998.

- Summer Science Research Committee. Spring 1998.
- Chair, Technology Studies Concentration. June 2001 to June 2008, June 2009 to June 2010. (Member, September 1998 to present.)
- Coordinator and Discussion Leader, Faculty Weekend Seminar. Fall 1998 to Spring 1999.
- Secretary, Science Division. Fall 1998 to June 2001.
- Institutional Review Board. Fall 1998 to Summer 2000. (Interim chair, July 2000.)
- Noyce Visiting Professorship Committee. Spring 1999 to present.
- Tutorial Teaching and Learning Group. Coordinator, Fall 1999.
- Co-coordinator (with Elaine Marzluff), Science Teaching and Learning Discussion Group, Fall 1999 to Spring 2004. Member of group since September 1997. Also led two meetings in Spring 1998 and coordinated initial meetings, Fall 1998.
- Advisor, Grinnell College Student Chapter of the Association for Computing Machinery (ACM). September 1999 to Spring 2001, Fall 2011 to present.
- Computer Science Representative, Science Building Phase II Planning Committee. July 2000 to Spring 2008.
- Editor and Author, Grinnell Alumni and Wannabes in Computer Science (GAWCS) Newsletter. January 2001 to Spring 2003.
- Mentor, Grinnell Women in Computer Science. March 2001 to present.
- Member, Grinnell College Draft Mission Statement Committee. Spring 2001.
- Chair, Noyce/Intel Grant Committee, Fall 2001 to Spring 2008. (Member of committee, Fall 1998 to present.)
- Member, Tutorial Committee. Fall 2002 to Fall 2003, Fall 2005 to Fall 2006.
- Institutional Representative, Midstates Science and Mathematics Consortium. June 2003 to June 2008.
- Member, Grinnell Online Community Advisory Committee. Fall 2003.
- Member, Committee for the Support of Faculty Scholarship. Fall 2003 to Summer 2006, Fall 2009-present.
- Member, Grinnell Strategic Planning Liberal Arts Subcommittee. Spring 2004.
- Department Representative, Liberal Arts Computer Science Consortium Meeting. Summer 2004.
- Member, Grinnell HHMI Committee. Fall 2004 to present.
- Member, Faculty Organization Committee. Fall 2004 to Summer 2006, Fall 2011 to present.
- Co-director, Grinnell Science Project. Spring 2004 to Spring 2006.
- Member, Office of Interdisciplinary Studies Interim Advisory Board. Fall 2005 to Summer 2006.
- Member, Copyright Task Force, Summer 2006 to Spring 2008.
- Chair, Science Division. Fall 2006 to Summer 2008.
- Member, Executive Council. Fall 2006 to Summer 2008.
- Chair, Ad Hoc Task Force on Voting. Fall 2006 to Spring 2007.
- Member, Office of Interdisciplinary Studies Advisory Board. Fall 2007 to Summer 2008.
- Computer Science Department Representative, Science Division Personnel Committee. Fall 2007 to Spring 2008; Fall 2009-present.
- Member and Secretary, Grinnell College Assessment Task Force. Fall 2010 to present.
- Member, Grinnell College Spaces Committee. Fall 2011 to present.