

Resume of Gerry Stahl

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Education

University of Colorado
1996-99 Postdoctoral Research Fellow
1993 Ph.D. in Computer Science *dissertation: "Interpretation in Design"*
1990 M.Sc. in Computer Science *exams in AI, theory, programming languages*
Northwestern University
1975 Ph.D. in Philosophy *dissertation: "Heidegger and Marx"*
1971 M.A. in Philosophy
University of Frankfurt
1973 Graduate study in critical social theory
University of Heidelberg
1968 Graduate study in continental philosophy
Massachusetts Institute of Technology (MIT)
1967 B.S. in Humanities & Science (Math & Philosophy)

Professional Experience

Assistant Research Professor
1999-present Department of Computer Science and
Institute of Cognitive Science, Boulder, CO
Post Doctoral Research Fellow
1996-1999 Center for LifeLong Learning & Design, Boulder, CO
President
1995-1996 Personalizable Software, Niwot, CO
Director of Software R&D
1993-1996 Owen Research Inc., Boulder, CO
Graduate Research Assistant
1990-1993 College of Environmental Design, Boulder, CO
Intern Interface Developer
1990-1991 US West Advanced Technology, Denver & Boulder, CO
Computer Science Instructor & Teaching Assistant
1989-1990 University of Colorado, Boulder, CO
Executive Director
1984-1989 Community Computerization Project, Philadelphia, PA
Planning and Evaluation Specialist
1979-1984 Southwest Germantown Community Development Corp., Philadelphia, PA
Community Organizer & VISTA Supervisor
1978-1979 Philadelphia Council of Neighborhood Organizations, Philadelphia, PA
Systems Programmer
1974-1977 Temple University, Philadelphia, PA
1970-1971 Northwestern University, Evanston, IL
1969-1970 Temple University, Philadelphia, PA
Applications Programmer
Summer 1966 Brown Bovari Cie, Baden, Switzerland
Summer 1965 University of Pennsylvania, Philadelphia, PA

Pending Grants (submitted 2001)

- “The Role of Computational Cognitive Artifacts in Collaborative Learning and Education,” Principal Investigator, \$971,000 over 3 years, sponsor: NSF Research On Learning and Education. Proposal: <http://www.cs.colorado.edu/~gerry/publications/proposals/role/role.pdf>.
- “Information Technology for Distributed Collaborative Learning in a Virtual Biology Lab,” Principal Investigator, \$472,000 over 3 years, sponsor: NSF Information Technology Research. Proposal: <http://www.cs.colorado.edu/~gerry/publications/proposals/itr2001/proposal.pdf>.
- “Perspectives on Collaboration: a Micro-ethnographic Study of Computational Perspectives in Computer Support for Collaborative Knowledge-Building at a Virtual Biology Laboratory,” Principal Investigator, \$308,000 over 3 years, sponsor: NSF Computation and Social Systems. Proposal: <http://www.cs.colorado.edu/~gerry/publications/proposals/css2001/css2001.pdf>.

Recent Grants (1997-present)

- 2000-2001: “New Media to Support Collaborative Knowledge-Building: Beyond Consumption and Chat” (Principal Investigator) \$19,752; Sponsor: Lab for New Media Strategy and Design. Proposal: <http://www.cs.colorado.edu/~gerry/publications/proposals/media/media.pdf>. Results: <http://www-jime.open.ac.uk/00/stahl/>.
- 1999-2000: "Interoperability among Knowledge Building Environments" (Principal Investigator) \$9,124; Sponsor: Center for Innovative Learning Technology / SRI. Proposal: <http://www.cs.colorado.edu/~gerry/publications/proposals/cilt99/proposal.pdf>. Results: <http://www.cs.colorado.edu/~gerry/xml>.
- 1998-1999: "Collaborative Web-Based Tools for Learning to Integrate Scientific Results into Social Policy" (co-PI with Ted Habermann at NOAA) \$89,338; Sponsor: NSF. Results: <http://www.cs.colorado.edu/~gerry/publications/conferences/1999/group99/>.
- 1997-2000: “Conceptual Frameworks and Computational Support for Organizational Memories and Organizational Learning” (co-PI with Gerhard Fischer and Jonathan Ostwald) \$725,000; Sponsor: NSF, Computation and Social Systems program. Proposal: <http://www.cs.colorado.edu/~gerry/publications/proposals/omol>. Results: <http://www.cs.colorado.edu/~gerry/publications/journals/ai&society/AI&Soc.PDF>.
- 1997-2000: “Allowing Learners to be Articulate: Incorporating Automated Text Evaluation into Collaborative Software Environments” (primary author and primary software developer; PIs: Gerhard Fischer, Walter Kintsch and Thomas Landauer) \$678,239; Sponsor: James S. McDonnell Foundation, Cognitive Science in Education Program. Proposal: <http://www.cs.colorado.edu/~gerry/publications/proposals/mcdonnell>. Results: <http://www.cs.colorado.edu/~gerry/publications/journals/ile2000/ile.pdf>.

Software Development Projects (1990-present)

These are some of the systems I implemented in the past decade, either at the University of Colorado or as a consultant. Except where indicated, I was the primary developer and they resulted in working prototypes. Theoretical frameworks for most of them are presented in my *Writings*. In some cases (e.g., Hermes, State the Essence and WebGuide) they are being used in on-going field studies.

- WebGuide (1998-2001): a knowledge-building environment with personal and group perspectives to facilitate collaboration and management of shared information spaces. Tried out in a middle school course and two graduate seminars. Supported by grants listed above. <http://www-jime.open.ac.uk/00/stahl/>
- InterOp (1999-2000): XML-based software to export data from incompatible knowledge-building environments in a standard format for display using XSL. Also used for client-server connection in WebGuide. Supported by CILT/SRI. <http://www.cs.colorado.edu/~gerry/xml>
- State the Essence (1997-1999): educational software using latent semantic analysis (LSA) to provide feedback to students summarizing a text. Used in middle school classrooms for three years and subjected to rigorous controlled experiments showing positive results, particularly for students having trouble understanding the given text. Supported by McDonnell Foundation. <http://www.cs.colorado.edu/~gerry/publications/journals/ile2000/ile.pdf>

- SimRocket (1998): a model-rocket simulation. Used with a middle school project team to analyze the effects of different rocket features.
<http://www.cs.colorado.edu/~gerry/publications/conferences/2001/ethnography2001/ethnography.pdf>
- WebNet (1996-1997): a Web-based design environment for LAN design and management. Integrated a number of components for collecting, displaying, up-dating and discussing domain knowledge and local knowledge about LAN configuration. Supported by ARPA.
<http://www.cs.colorado.edu/~gerry/publications/journals/ai&society/AI&Soc.PDF>
- CIE (1995-1996): a workplace documentation support system for ISO 9000 certification, using computational perspectives to support bottom-up documentation processes. Prototyped for a local software startup.
- Tracker (1995-1996): an information management system for the Baltimore public schools to track services to students on welfare. I worked on interface components to an Access database as a consultant.
- OptoNet (1994-1995): a software feedback system in LabView with real-time analog-to-digital data acquisition to stabilize holographic equipment during space flight. This software was tested on NASA zero-g simulation flights. Developed under a NASA SBIR II grant.
- TCA (1994-1995): a digital library for teachers to exchange, discuss, and adapt curricular materials for constructivist classrooms. The Teachers' Curriculum Assistant anticipated approaches now being implemented years later. Prototyped under an NSF SBIR I grant.
<http://www.cs.colorado.edu/~gerry/publications/journals/c&e/C&E.PDF>
- Crew (1993-1995): a case-based reasoning system to model long-term astronaut missions, developed under contract with NASA in cooperation with psychologists at Houston astronaut support. Extends and integrates several AI techniques. Developed under a NASA SBIR II grant and delivered to NASA.
<http://www.cs.colorado.edu/~gerry/publications/journals/crew/crew.PDF>
- Hermes (1992-1993): a hypermedia substrate for design environments, including computational perspectives, persistent versions of drawings, user-programmable critic agents, extensible scripting language. This was my dissertation system. I used it to implement an environment for lunar habitat design. NASA subsequently used it for their *Space Station Freedom Man-Systems Integration Standards* design guidelines for spacecraft. Supported by CASI and Johnson Engineering.
http://www.cs.colorado.edu/~gerry/publications/conferences/1990-1997/cogsci93/COGSC_TR.PDF
- Phidias2 (1990-1992): an object-oriented rewrite of a hypermedia substrate for design rationale using contexts. This was an early version of Hermes. Supported by CASI and IBM.
- InterView (1990-1991): an information management system for US West service providers to access data in multiple legacy database systems. I worked on C++ interface components to an object-oriented database management system as an intern.

Writings

Dissertations

- Stahl, G. (1993) *Interpretation in Design: The Problem of Tacit and Explicit Understanding in Computer Support of Cooperative Design*, Ph.D. Dissertation, Department of Computer Science, University of Colorado, Boulder, CO. Available at: <http://www.cs.colorado.edu/~gerry/publications/dissertations/computer>.
- Stahl, G. (1975) *Marxian Hermeneutics and Heideggerian Social Theory: Interpreting and Transforming Our World*, Ph.D. Dissertation, Department of Philosophy, Northwestern University, Evanston, IL. Available at: <http://www.cs.colorado.edu/~gerry/publications/dissertations/philosophy/>.

Journal and Book Section Publications

- Stahl, G. (2001) Rediscovering CSCL. In T. Koschmann, R. Hall, & N. Miyake (Eds.), *CSCL2: Carrying Forward the Conversation*, Lawrence Erlbaum, Mahway, NJ. Available at: <http://www.cs.colorado.edu/~gerry/publications/journals/cscl2/cscl2.html>.
- Stahl, G. (2000) Collaborative information environments to support knowledge construction by communities, *AI & Society*, 14, pp. 1-27. Available at: <http://www.cs.colorado.edu/~gerry/publications/journals/ai&society/>.
- Stahl, G. (2000) WebGuide: Guiding collaborative learning on the Web with perspectives, *Journal of Interactive Media in Education (JIME)*. Available at: <http://www.jime.open.ac.uk/00/stahl/>.

- Kintsch, E., Steinhart, D., Stahl, G., Matthews, C., Lamb, R., & the LSA Research Group (2000) Developing summarization skills through the use of LSA-backed feedback, *Interactive Learning Environments*, 8 (2), pp. 87-109. Available at: <http://www.cs.colorado.edu/~gerry/publications/journals/ile2000/ile.html>.
- Stahl, G. (2000) Armchair missions to Mars: Using case-based reasoning and fuzzy logic to simulate a time series model of astronaut crews. In S. Pal, T. Dillon, & D. Yeung (Eds.), *Soft Computing in Case Based Reasoning*, Springer Verlag, London, UK, pp. 321-334. Available at: <http://www.cs.colorado.edu/~gerry/publications/journals/crew/index.html>.
- Stahl, G. (2000) Review of "Professional Development for Cooperative Learning: Issues and Approaches" [book review], *Teaching and Learning in Medicine: An International Journal*, 12 (4). Available at: http://www.cs.colorado.edu/~gerry/publications/journals/medicine/coop_learn.html.
- Fischer, G., Nakakoji, K., Ostwald, J., Stahl, G., & Sumner, T. (1998) Embedding critics in design environments. In M. T. Maybury & W. Wahlster (Eds.), *Readings in Intelligent User Interfaces*, Morgan Kaufman, New York, pp. 537-561. Available at: <http://www.cs.colorado.edu/~gerry/publications/journals/ker/index.html>.
- Stahl, G. (1996) Armchair missions to Mars: Using case-based reasoning and fuzzy logic to simulate a time series model of astronaut crews., *Knowledge-Based Systems*, 9 , pp. 409-415. Available at: <http://www.cs.colorado.edu/~gerry/publications/journals/crew/index.html>.
- Stahl, G., Sumner, T., & Owen, R. (1995) Share globally, adapt locally: Software to create and distribute student-centered curriculum, *Computers and Education. Special Issue on Education and the Internet*, 24 (3), pp. 237-246. Available at: <http://www.cs.colorado.edu/~gerry/publications/journals/c&e/>.
- Fischer, G., Nakakoji, K., Ostwald, J., Stahl, G., & Sumner, T. (1993) Embedding critics in design environments, *Knowledge Engineering Review*, 4 (8), pp. 285-307. Available at: <http://www.cs.colorado.edu/~gerry/publications/journals/ker/index.html>.
- Stahl, G. (1976) Attuned to Being: Heideggerian music in technological society, *Boundary 2*, IV (2), pp. 637-664. Available at: <http://www.cs.colorado.edu/~gerry/publications/interpretations/attuned.htm>.
- Stahl, G. (1975) The jargon of authenticity: An introduction to a Marxist critique of Heidegger, *Boundary 2*, III (2), pp. 489-498. Available at: <http://www.cs.colorado.edu/~gerry/publications/interpretations/jargon.htm>.
- Peer-reviewed Conference papers**
- Stahl, G. & Sanusi, A. (2001) It doesn't take a rocket scientist: Multi-layered perspectives on collaborative learning activities in a middle school rocket simulation project, In: Proceedings of *22nd Annual Ethnography in Education Research Forum*, Philadelphia, PA. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/2001/ethnography2001/ethnography.html>.
- Lenell, E. & Stahl, G. (2001) Evaluating affordance short-circuits by reviewers and authors participating in on-line journal reviews, In: Proceedings of *European Computer Supported Collaborative Learning (ECSCCL '01)*, Maastricht, NL. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/2001/ecsccl2001/ecsccl.html>.
- Stahl, G. (2000) A model of collaborative knowledge-building, In: Proceedings of *Fourth International Conference of the Learning Sciences (ICLS 2000)*, Ann Arbor, MI, pp. 70-77. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/2000/icls/> -- and -- <http://www.umich.edu/~icls/proceedings/abstracts/ab70.html>.
- Stahl, G. (1999) Reflections on WebGuide: Seven issues for the next generation of collaborative knowledge-building environments, In: Proceedings of *Computer Supported Collaborative Learning (CSCL '99)*, Palo Alto, CA, pp. 600-610. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/1999/csc199/> -- and -- <http://kn.cilt.org/csc199/A73/A73.HTM>.
- Stahl, G. (1999) WebGuide: Guiding collaborative learning on the Web with perspectives, In: Proceedings of *Annual Conference of the American Educational Research Association (AERA '99)*, Montreal, Canada. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/1999/aera99/>.
- Stahl, G. (1999) POW! Perspectives on the Web, In: Proceedings of *WebNet World Conference on the WWW and Internet (WebNet '99)*, Honolulu, HA. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/1999/webnet99/webnet99.html>.

- Stahl, G. & Herrmann, T. (1999) Intertwining perspectives and negotiation, In: Proceedings of *International Conference on Supporting Group Work (Group '99)*, Phoenix, AZ. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/1999/group99/>.
- Stahl, G. & Herrmann, T. (1998) Verschrankung von Perspektiven durch Aushandlung (in German; translated by G. Stahl as: The sharing of perspectives by means of negotiation), In: Proceedings of *Interaktion in Web: Innovative Kommunikationsformen*, Marburg, Germany, pp. 95-112. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/1998/verschrankung/index.html> and <http://www.cs.colorado.edu/~gerry/publications/conferences/1998/sharing/sharing.html>.
- Stahl, G. (1998) Collaborative information environments for innovative communities of practice, In: Proceedings of *German Computer-Supported Cooperative Work Conference (D-CSCW '98): Groupware und organisatorische Innovation*, Dortmund, Germany, pp. 195-210. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/1998/dcscw98/dcscw.html>.
- Stahl, G., Sumner, T., & Repenning, A. (1995) Internet repositories for collaborative learning: Supporting both students and teachers, In: Proceedings of *Computer Support for Collaborative Learning (CSCL '95)*, Bloomington, Indiana, pp. 321-328. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/1990-1997/csc195/csc1.htm>.
- Stahl, G. (1993) Supporting situated interpretation, In: Proceedings of *Annual Meeting of the Cognitive Science Society (CogSci '93)*, Boulder, CO, pp. 965-970. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/1990-1997/cogsci93/CogSci.html>.
- Fischer, G., Nakakoji, K., Ostwald, J., Stahl, G., & Sumner, T. (1993) Embedding computer-based critics in the contexts of design, In: Proceedings of *Conference on Human Factors in Computing Systems (INTERChi '93)*, Amsterdam, Holland, pp. 157-164. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/1990-1997/chi93/CHI93.html>.
- Stahl, G., McCall, R., & Peper, G. (1992) Extending hypermedia with an inference language: An alternative to rule-based expert systems, In: Proceedings of *IBM ITL Conference: Expert Systems*, pp. 160-167. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/1990-1997/ibm92/ExtHyper.html>.

Peer-reviewed Conference Presentations

- Stahl, G. & Hoadley, C. (2000) Strategies for sustaining interaction in online discussion forums and virtual communities [workshop], In: Proceedings of *Annual Conference of the American Educational Research Association (AERA 2000)*, New Orleans, LA. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/2000/aera2000/aera.html>.
- Stahl, G., Koschmann, T., & Scardamalia, M. (1999) Collaborating on the design and assessment of knowledge-building environments in the 2000's [workshop], In: Proceedings of *Computer Support for Collaborative Learning (CSCL '99)*, Stanford, CA. Available at: http://www.cs.colorado.edu/~gerry/publications/conferences/1999/csc199/csc199_workshop.html.
- Stahl, G. (1999) WebGuide: Computational perspectives for learning communities [demo], In: Proceedings of *Annual conference of the Center for Innovative Learning Technologies (CILT '99)*, San Jose, CA. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/1999/cilt99/index.html>.
- Koschmann, T., Ostwald, J., & Stahl, G. (1998) Shouldn't we really be studying practice? [panel position paper], In: Proceedings of *International Conference on the Learning Sciences (ICLS '98)*, Atlanta, GA. Available at: http://www.cs.colorado.edu/~gerry/publications/conferences/1998/icls98/ICLS_Workshop.html.
- Stahl, G. (1998) Presentation of WebGuide, In: Proceedings of *Annual conference of the Center for Innovative Learning Technologies (CILT '98)*, San Jose, CA. Stahl, G. & dePaula, R. (1998) Learning perspectives [poster], In: Proceedings of *International Conference on the Learning Sciences (ICLS'98)*, Atlanta, GA. Available at: <http://www.cs.colorado.edu/~gerry/publications/conferences/1998/icls98/icls98.html>.
- Stahl, G., Hermann, T., dePaula, R., & Loser, K.-U. (1998) WebGuide: Guiding cooperative work on the Web with support for perspectives and negotiation [demo], In: Proceedings of *Computer Supported Cooperative Work (CSCW '98)*, Seattle, WA. Available at: http://www.cs.colorado.edu/~gerry/publications/conferences/1998/cscw98/cscw_demo.html.
- Koschmann, T. & Stahl, G. (1998) Learning issues in problem-based learning: Situating collaborative information seeking. Workshop on Technologies for Collaborative Information Seeking [workshop position paper], In:

Proceedings of *ACM Conference on Computer Supported Cooperative Work (CSCW 98)*, Seattle, WA.
Available at: http://www.cs.colorado.edu/~gerry/publications/conferences/1998/cscw98/cscw_workshop.html.

Stahl, G. (1997) WebGuide [poster], In: Proceedings of *Computer Support for Collaborative Learning (CSCL '97)*, Toronto, Canada.

Technical Reports

Stahl, G. (1996) *Personalizing the Web*, Technical Report No. CU-CS-836-96, Department of Computer Science, University of Colorado, Boulder, CO. Available at:
<http://www.cs.colorado.edu/~gerry/publications/techreports/www6/PAPER82.html>.

Stahl, G. (1996) *Supporting Interpretation in Design*, Technical Report No. CU-CS-598-92, Department of Computer Science, University of Colorado, Boulder, CO. Available at:
<http://www.cs.colorado.edu/~gerry/publications/techreports/design/Design.tr.html>.

Stahl, G. (1995) *Supporting Personalizable Learning*, Technical Report No. CU-CS-788-95, Department of Computer Science, University of Colorado, Boulder, CO. Available at:
<http://www.cs.colorado.edu/~gerry/publications/techreports/personalize/>.

Stahl, G. (1992) *A Computational Medium for Supporting Interpretation in Design*, Technical Report No. CU-CS-598-92, Department of Computer Science, University of Colorado, Boulder, CO. Available at:
<http://www.cs.colorado.edu/~gerry/publications/techreports/design/Design.tr.html>.

Stahl, G. (1992) *Toward a Theory of Hermeneutic Software Design: Dissertation Proposal*, Technical Report No. CU-CS-589-92, Department of Computer Science, University of Colorado, Boulder, CO. Available at:
<http://www.cs.colorado.edu/~gerry/publications/dissertations/Proposal.html>.

Stahl, G. (1991) *A Hypermedia Inference Language as an Alternative to Rule-based Systems*, Technical Report No. CU-CS-557-91, Department of Computer Science, University of Colorado, Boulder, CO. Available at:
<http://www.cs.colorado.edu/~gerry/publications/conferences/1990-1997/ibm92/InfLang.html>.

Professional Service

Editorial Board, *Journal of Interactive Media in Education (JiME)*

Reviewer, *Journal of the Learning Sciences (JLS)*

Program Chair, *Computer Support for Collaborative Learning (CSCL 2002)*, Boulder, Colorado, January 2002

Local Arrangements Chair, *Supporting Group Work (GROUP 2001)*, Boulder, Colorado, October 2001

Reviewer for numerous conferences, including AERA, CHI, CSCL, GROUP, ICLS, WebNet

References

- Professor **Gerhard Fischer** Director, Center for LifeLong Learning & Design
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Electronic Resume

An electronic version of this resume with live links is available at: <http://www.cs.colorado.edu/~gerry/resume.html>
and in pdf format for printing at: <http://www.cs.colorado.edu/~gerry/resume.pdf>.