

# Conference Program



**CSCL 2002**

**Boulder, Colorado USA January 7-11**

<http://cscl2002.org/>

**“Computer Support for Collaborative Learning:  
Foundations for a CSCL Community”**

## Program Overview

### *Monday, January 7*

9 – 5           Tutorials, Workshops, Doctoral Consortium

### *Tuesday, January 8*

9 – 4           Tutorials, Workshops, Doctoral Consortium

4 – 5           Welcoming Plenary

5 – 7           Interactive Posters (A) and Reception

### *Wednesday, January 9*

9 – 10:30      Keynote Conversation (A Paradigm of CSCL Research)

10:30 – 11     Coffee Break

11 – 1          Parallel Activities

1 – 3           Lunch Break

3 – 5           Parallel Activities

5 – 7           Interactive Posters (B) and Reception

### *Thursday, January 10*

9 – 10:30      Keynote Conversation (A Paradigm of Expansive Learning)

10:30 – 11     Coffee Break

11 – 1          Parallel Activities

1 – 3           Lunch Break

3 – 5           Parallel Activities

5 – 7           Interactive Posters (C) and Reception

### *Friday, January 11*

9 – 10:30      Foundational Papers

10:30 – 11     Coffee Break

11 – 1          Foundational Papers & Student Prize paper

1 – 2           Lunch Break

2 – 4           Reflections, Reports, Closing

## Monday, January 7, 2002

### 9 – 5      *Workshops, Tutorials, Doctoral Consortium*

Workshop: Analysis and Modeling of Collaborative Learning Interactions <i>Martin Mühlenbrock, Ulrich Hoppe</i>	Interlocken C
Workshop: Integrating CSCL Environments and Digital Libraries <i>Mary Marlino, Tammy Sumner, Mimi Recker</i>	Interlocken D
Workshop (morning): Qualitative Methods and the Use of Videotaped Data: A Data Session <i>Timothy Koschmann, Yrjö Engeström, Curtis LeBaron, Rogers Hall</i>	Spruce
Tutorial (morning): Using P2P e-Learning Technology to Turbocharge Learning Environments <i>Richard Wilfred Yelle, Chuck Dornbush, Lynn Heffron.</i>	Fir
Tutorial: Latent Semantic Analysis: Theory, Method and Application <i>Tom Landauer, Scott Dooley</i>	Birch
Tutorial: Scandinavian Perspectives on CSCL <i>Lone Dirckinck-Holmfeld, Annita Fjuk, Kristen Nygaard, Elsebeth                  Korsgaard Sorensen, Håkon Tolsby, Barbara Wasson</i>	Alder
Doctoral Consortium	Cedar

## Tuesday, January 8, 2002

### 9 – 4      **Workshops, Tutorials, Doctoral Consortium**

Workshop: Learning Environments for Inquiry Skills <i>Tom Murray, Wouter van Joolingen</i>	Interlocken C
Workshop: Documenting Collaborative Interactions: Issues and Approaches <i>Sadhana Puntambekar, Rosemary Luckin</i>	Interlocken D
Workshop (morning): The Learning Grid <i>John Cherniavsky, Eric Hamilton</i>	Spruce
Workshop (afternoon): Evaluating Capabilities and Future Research Issues in the Use of Online Course Portfolios <i>Eugene S. Takle, Elsebeth K. Sorensen, Daryl Herzman</i>	Spruce
Tutorial (morning): Teaching Computer Classes Using Mind Mapping Techniques <i>Belinda Moses</i>	Fir
Event (afternoon): Design Principles for Educational Software <i>Yael Kali, Nathan Bos, Marcia Linn, Jody Underwood, Jim Hewitt</i>	Fir
Tutorial: The Inquiry Page: A Collaboratory for Curricular Innovation <i>Bertram C. Bruce, Ann P. Bishop, Jennifer Robins</i>	Birch
Tutorial (morning): Installing and Using Collaborative Websites <i>Mark Guzdial, Jochen Rick</i>	Alder
Doctoral Consortium	Cedar

### 4 – 5      **Welcoming Plenary**

**Interlocken AB**

Welcome to CSCL 2002 <i>Gerhard Fischer, Conference Chair</i>	
Innovative Approaches to Learning at CU-Boulder <i>Richard Byyny, Chancellor of CU-Boulder</i>	
Cognitive Disabilities: Challenges & Opportunities for CSCL <i>David Braddock, Assoc. VP for Research at CU &amp; Exec. Dir., Coleman Institute</i>	
Overview of the CSCL 2002 Program <i>Gerry Stahl, Program Chair</i>	

### 5 – 7      **Interactive Posters (A) and Reception**

**Centennial Ballroom**

Issues in the Design of CSCL Systems <i>(See short paper interactive poster session A below)</i>	
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### 3 – 5 *Parallel Activities*

Long Papers (see long paper session E below) <i>(Methodology Track) Qualitative Studies and their Implications for CSCL</i>	Interlocken A
Long Papers (see long paper session G below) <i>(Pedagogy Track) Computer Support to Scaffold Collaborative Learning</i>	Interlocken B
Long Papers (see long paper session K below) <i>(Technology Track) Synchronous Collaboration Support for Adults</i>	Interlocken CD
Event: The Impact of Distributed and Ubiquitous Computational Devices on the Collaborative Learning Environment <i>Eric Klopfer, Earl Woodruff</i>	Fir
Event: Multicultural Issues in the Design, Evaluation and Dissemination of CSCL Systems <i>Masanori Sugimoto, Daniel D. Suthers</i>	Birch
Event: L <sup>3</sup> - An Infrastructure for Collaborative Learnflow <i>Martin Wessner, Peter Dawabi, Jörg M. Haake</i>	Birch
Panel: Qualitative Analysis of Videotaped Data <i>Timothy Koschmann, Yrjö Engeström, Curtis LeBaron, Rogers Hall</i>	Spruce

### 5 – 7 *Interactive Posters (B) and Reception*

### *Centennial Ballroom*

Quantitative Analyses of Case Studies and their Implications for CSCL  
*(See short paper interactive poster session B below)*

## Thursday, January 10, 2002

### 9 – 10:30    **Keynote (A Paradigm of Expansive Learning)**    **Interlocken AB**

New Forms of Expansive Learning at Work: The Landscape of Co-Configuration

*Keynote speaker: Yrjö Engeström*

*Moderator & discussants: Gerhard Fischer, Roy Pea, Kai Hakkarainen*

### 10:30 – 11    **Coffee Break**    **Centennial Ballroom**

Demos: BSCW, C-Visions, EDC, Kolumbus, FLE3, WISE, 3D-VR

### 11 – 1    **Parallel Activities**

Long Papers (see long paper session B below)    Interlocken A  
*(Theory Track) The Role of Artifacts in Collaborative Learning*

Long Papers (see long paper session H below)    Interlocken B  
*(Pedagogy Track) Teachers and CSCL*

Long Papers (see long paper session L below)    Interlocken CD  
*(Technology Track) Issues in the Design of Asynchronous Collaboration Systems*

Event:    Spruce  
 Orchestrating Handhelds in the Classroom with SRI's ClassSync  
*Chris DiGiano, Charles Patton*

Event:    Fir  
 Dialogue – A Web Based Communication Tool Supporting Learning Communities  
*Barbara Shelly, Patricia Tinto*

Event:    Alder  
 3D Multi-user Virtual Worlds for Education: Knowledge Building  
 in the Vlearn3D.org Community  
*Margaret Corbit, Bonnie DeVarco*

Event:    Alder  
 External Representations for Collaborative Learning and Assessment  
*Sadhana Puntambekar, Agnes Stylianou, Dan Suthers,  
 Chris Hundhausen, Teresa Hübscher-Younger*

Event:    Birch  
 The Knowledge Loom: Supporting School Improvement Through Online  
 Dissemination of Best Practices and Collaborative Inquiry to Put Them into Action  
*Martin Huntley, Mary Anne Mather, Stephanie Feger*

### 1 – 3    **Lunch Break**

Lunch    on your own  
 ITCOLE Project Meeting (by invitation)    Spruce

### 3 – 5 *Parallel Activities*

Long Papers (see long paper session C below) <i>(Theory Track) Foundational Issues of CSCL</i>	Interlocken A
Long Papers (see long paper session I below) <i>(Pedagogy Track) CSCL in the Broader Social Context</i>	Interlocken B
Long Papers (see long paper session M below) <i>(Technology Track) Issues of Representation in CSCL</i>	Interlocken CD
Event: Modeling and Supporting Learning Activities in a Computer-integrated Classroom <i>Andreas Lingnau, Ulrich Hoppe</i>	Alder
Event: Integrating Collaborative Concept Mapping Tools with Group Memory and Retrieval Functions <i>H. Ulrich Hoppe, Katrin Gaßner</i>	Alder
Event: Video Cases for Teacher Learning: Issues of Social and Organizational Design for Use <i>Greg Shrader, Barry Fishman, Sasha Barab, Kevin O'Neill, Gary Oden, Dan Suthers</i>	Birch
Event: Developing a Shared Language for Discussing Networked Learning Systems <i>Herbert Remidez, Joshua S. Gottdenker, James M. Laffey, Dale R. Musser, Ran-Young Hong, Linda Espinosa, Christopher J. Amelung</i>	Fir
Event: Investigating Physics: An Intimate Look at an Online Inquiry-based Graduate Science Course <i>Andee Rubin, Sue Doubler</i>	Fir
Teacher Participation Program Workshop	Spruce

### 5 – 7 *Interactive Posters (C) and Reception*

### *Centennial Ballroom*

Qualitative Analyses of Case Studies and their Implications for CSCL  
*(See short paper interactive poster session C below)*



## Friday, January 11, 2002

### **9 – 10:30 Foundational Papers**

Epistemological Foundations for CSCL: A Comparison of Three Models of Innovative Knowledge Communities

*Sami Paavola, Lasse Lipponen, Kai Hakkarainen*

Instructional Artifacts

*Berthel Sutter*

Social Information Sharing in a CSCL Community

*Hichang Cho, Michael Stefanone, Geri Gay*

***Interlocken AB***

### **10:30 – 11 Coffee Break**

***Centennial F***

### **11 – 1 Foundational Papers & Student Prize Paper**

***Interlocken AB***

A Walk on the WILD Side: How Wireless Handhelds May Change CSCL

*Jeremy Roschelle, Roy Pea*

Student Prize Paper

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Panel on Funding for CSCL Research

*John Cherniavsky, Eric Hamilton*

Reflections on Interactive Events Program

*Dan Suthers*

### **1 – 2 Lunch Break**

Lunch

CSCL Business Meeting (open)

on your own

Interlocken AB

### **2 – 4 Reflections, Reports, Closing**

***Interlocken AB***

Reflections by Teacher Participation Program

Reflections on Short Paper Interactive Poster Sessions

Idea Catchers

Closing & Invitation to CSCL 2003

## Long Paper Sessions

### **A. (Theory Track): Featured Foundational Papers**

*Moderator/discussant: Gerry Stahl*

Epistemological Foundations for CSCL: A Comparison of Three Models of Innovative Knowledge Communities

*Sami Paavola, Lasse Lipponen, Kai Hakkarainen*

Instructional Artifacts

*Berthel Sutter*

Social Information Sharing in a CSCL Community

*Hichang Cho, Michael Stefanone, Geri Gay*

A Walk on the WILD Side: How Wireless Handhelds May Change CSCL

*Jeremy Roschelle, Roy Pea*

### **B. (Theory Track): The Role of Artifacts in Collaborative Learning**

*Moderator/discussant: Jeremy Roschelle*

Contributions to a Theoretical Framework for CSCL

*Gerry Stahl*

Exploring Foundations for Computer-Supported Collaborative Learning

*Lasse Lipponen*

Describing Construction of Knowledge through Identification of Collaboration Patterns in 3D Learning Environments

*Ingeborg Krange, Annita Fjuk, Anniken Larsen, Sten Ludvigsen*

OCAF: An Object-oriented Model of Analysis of Collaborative Problem Solving

*N.M. Avouris, A. Dimitracopoulou, V. Komis, C. Fidas*

### **C. (Theory Track): Foundational Issues of CSCL**

*Moderator/discussant: Michele Minnis*

Making Sense of Shared Knowledge

*Hans Christian Arnseth, Ivar Solheim*

CSCL for Schools that Learn

*James M. Laffey, Dale R. Musser, Linda Espinosa, Herbert Remidez Jr., Joshua S. Gottdenker, Ran-Young Hong, Chris Amelung*

Creating Context: Design-based Research in Creating and Understanding CSCL

*Christopher Plekss Hoadley*

### **D. (Methodology Track): Quantitative Analysis of Social Structures**

*Moderator/discussant: Ricki Goldman*

A Machine Learning Approach to Assessing Knowledge Sharing During Collaborative Learning Activities

*Amy Soller, Janyce Wiebe, Alan Lesgold*

The Development of Deep Learning During a Synchronous Collaborative On-line Course

*Gillian Armitt, Frances Slack, Sharon Green, Martin Beer*

Emergent Leadership in Small Groups Using Computer-Mediated Communication

*Ryoko Yamaguchi, Nathan Bos, Judy Olson*

Golem, from Prague to Cyberspace: The Use of CSCL in Cultural Education for Diasporas

*Zvi Bekerman, Gabriel Horenczyk*

### **E. (Methodology Track): Qualitative Studies and their Implications for CSCL**

*Moderator/discussant: Volker Wulf*

Cracking the Code: Learning to Collaborate and Collaborating to Learn in a Networked Environment  
*Vic Lally, Maarten de Laat*

Taking The 'No' Out of Lotus Notes: Activity Theory, Groupware, and Student Groupwork  
*John Halloran, Yvonne Rogers, Mike Scaife*

Re-contextualization of Teaching and Learning in Videoconference-based Environments: An Empirical Study  
*Ulf Hedestig, Victor Kaptelinin*

CML – The ClassSync Modeling Language  
*John Brecht, Mark Chung, Roy Pea*

### **F. (Pedagogy Track): Computer Support for Problem-Based Learning**

*Moderator/discussant: Margaret Riel*

Collaborative Ways of Knowing: Issues in Facilitation  
*Cindy E. Hmelo-Silver*

The STEP System for Collaborative Case-Based Teacher Education: Design, Evaluation & Future Directions  
*Sharon J. Derry, Marcelle Siegel, John Stampen, and the STEP Team*

The STEP Environment for Distributed Problem-Based Learning on the World Wide Web  
*Constance A. Steinkuehler, Sharon J. Derry, David K. Woods, Cindy E. Hmelo-Silver*

Reflective Inquiry: Enabling Group Self-regulation in Inquiry-based Science Using the Progress Portfolio Tool  
*Eleni A. Kyza, Ravit Golan, Brian J. Reiser, Daniel C. Edelson*

### **G. (Pedagogy Track): Computer Support to Scaffold Collaborative Learning**

*Moderator/discussant: Christopher Hoadley*

Mapping Alternative Discourse Structures onto Computer Conferences  
*David Jonassen, Herbert Remidez*

Scaffolding Group Learning in a Collaborative Networked Environment  
*Amy S. Wu, Rob Farrell, Mark K. Singley*

Why Scaffolding Should Sometimes Make Tasks More Difficult for Learners  
*Brian J. Reiser*

Gender and Programming Achievement in a CSCL Environment  
*Amy Bruckman, Carlos Jensen, Austina DeBonte*

### **H. (Pedagogy Track): Teachers and CSCL**

*Moderator/discussant: Mark Schlager*

Complexity, Harmony and Diversity of Learning in Collaborative E-learning Continuing Professional Development Groups  
*David McConnell*

Reflective Communicator Roles in Preservice Teacher Team Email Discussions  
*Robert J. Beck, Richard S. Brown, Sue K. Marshall, Jennifer Schwarz*

Applying Technology to Restructuring and Learning  
*Mary Burns, Marylu Menchaca, Vicki Dimock*

Constructing Collaborative Pedagogical Situations in Classrooms : A Scenario and Role Based Approach  
*Christine Ferraris, Philippe Brunier, Christian Martel*

## ***I. (Pedagogy Track): CSCL in the Broader Social Context***

*Moderator/discussant: Earl Woodruff*

Web Resource Collaboration Center (WRCC): An Integrated Tool to Support Lifelong Learning

*Joanna C. Dunlap*

The Motivation is the Message: Comparing CSCL in Different Settings

*R. T. Jim Eales, Tony Hall, Liam J. Bannon*

From Paralyzing Myths to Expansive Action: Building Computer-Supported Knowledge Work into the Curriculum from Below

*Yrjö Engeström, Ritva Engeström, Arja Suntio*

Working and Learning Together: ICT Supported Learning in Small Businesses

*Craig Thomson*

## ***J. (Technology Track): Synchronous Collaboration Support for Children***

*Moderator/discussant: Amy Bruckman*

Understanding Children's Interactions in Synchronous Shared Environments

*Stacey D. Scott, Regan L. Mandryk, Kori M. Inkpen*

Interfaces to Support Children's Co-present Collaboration: Multiple Mice and Tangible Technologies

*Danaë Stanton, Helen Neale, Victor Bayon*

Literacy Learning by Storytelling with a Virtual Peer

*Kimiko Ryokai, Catherine Vaucelle, Justine Cassell*

A Two-tiered Collaborative Design for Observational Science Activities in Simulated Environments

*Tom Moher, Janet Kim, David Haas*

## ***K. (Technology Track): Synchronous Collaboration Support for Adults***

*Moderator/discussant: Jörg Haake*

Evidence from a Series of Experiments on Video-mediated Collaboration: Does Eye Contact Matter?

*Richard Joiner, Eileen Scanlon, Tim O'Shea, Randall B. Smith, Canan Blake*

Using Tools and Resources in Computer Supported Collaborative Writing

*Gijsbert Erkens, Gellof Kanselaar, Maaïke Prangma, Jos Jaspers*

Getting in on the (Inter)Action: Exploring Affordances for Collaborative Learning in a Context of Informed Participation

*Hal Eden*

Learning Via Distributed Dialogue: Livenotes and Handheld Wireless Technology

*Alastair Iles, Daniel Glaser, Matthew Kam, John Canny*

## ***L. (Technology Track): Issues in the Design of Asynchronous Collaboration Systems***

*Moderator/discussant: Anders Mørch*

Exploring the Lack of Dialogue in Computer-Supported Collaborative Learning

*Mark Guzdial, Karen Carroll*

Supporting Interaction Outside of Class: Anchored Discussions vs. Discussion Boards

*A.J. Bernheim Brush, David Barger, Jonathan Grudin, Alan Borning, Anoop Gupta*

Collaborative Learning at Low Cost: CoWeb Use in English Composition

*Jochen Rick, Mark Guzdial, Karen Carroll, Lissa Holloway-Attaway, Brandy Walker*

Virtual Communication in Middle School Students' and Teachers' Inquiry

*Minna Lakkala, Liisa Ilomäki, Jiri Lallimo, Kai Hakkarainen*

## ***M. (Technology Track): Issues of Representation in CSCL***

*Moderator/discussant: Bob Craig*

The Effects of Representation on Students' Elaborations in Collaborative Inquiry

*Daniel D. Suthers, Christopher D. Hundhausen*

The Effect of Representations on Communication and Product during Collaborative Modeling

*Simone Löhner, Wouter van Joolingen*

Influence of Authority on Convergence in Collaborative Learning

*Teresa Hübscher-Younger, N. Hari Narayanan*

Fostering Collaborative Knowledge Construction in Desktop Video-conferencing. Effects of Content Schemes and Cooperation Scripts in Peer Teaching Settings

*Markus Reiserer, Bernhard Ertl, Heinz Mandl*

## Short Paper Interactive Poster Sessions

### *A. Issues in the Design of CSCL Systems*

*Discussant: Tammy Sumner*

Symphony-Q: A Support System for Learning Music through Collaboration

*Fusako Kusunoki, Masanori Sugimoto, Hiromichi Hashizume*

COALE: Collaborative and Adaptive Learning Environment

*Nobuko Furugori, Hirotaka Sato, Hiroaki Ogata, Youji Ochi, Yoneo Yano*

Construction and Inspection of Learner Models

*Juan-Diego Zapata-Rivera, Jim Greer*

Using the Internet to Improve University Education: Problem-oriented Web-based Learning with MUNICS

*Frank Fischer, Pamela Troendle, Heinz Mandl*

Applying Open Source Principles to Collaborative Learning Environments

*Eric Scharff*

Different Achievement in Online Oral History

*Jason B. Ellis, Amy S. Bruckman*

Design of Augmented Creative Environments

*Colin Beardon, Pelle Ehn, Lone Malmberg*

Case Application Suite: Promoting Collaborative Case Application in Learning By Design Classrooms

*JaKita N. Owensby, Janet L. Kolodner*

Compadres: Lightweight Support for Distributed Collaborators

*Brian R. Johnson*

Project-based Learning with CommSy

*Michael Janneck, Wolf-Gideon Bleek*

Mathematical Discussion System

*Gabe Johnson*

Online Collaborative Learning as a Catalyst for Systemic Change in the Teaching-Learning Process Within a Multi-Campus Institution of Higher Education

*Carlos Enrique Gonzalez, Paul Resta*

Communityware Goes to School

*Alessandra Agostini, Monica Divitini*

Using "Thinking Tags" to Improve Understanding in Science: A Genetics Simulation

*Kimberley A. MacKinnon, Susan Yoon, Gail Andrews*

Collaborative Network-Based Virtual Reality: The Past, the Present, and the Future of the Virtual Solar System Project

*Kenneth E. Hay, Dean M. Elliott, Beaumie Kim*

Moving Toward Knowledge-building Communities in Health Information Website Design

*Jennifer Turns, Kristina Liu, Tracey Wagner*

Mediating Collective Discussions Using an Intelligent Argumentation-Based Framework

*Marco A. Eleuterio, Jean-Paul Barthès, Flávio Bortolozzi*

VideoTraces: Rich Media Annotations for Learning and Teaching

*Reed Stevens, Gina Cherry, Janice Fournier*

Introduction to the Shadow netWorkspace

*Joshua S. Gottdenker, Herbert Remidez Jr., Ran-Young Hong, So-Yeon Yoon, Chris Amelung, Dale R.*

*Musser, James M. Laffey*

Collaborative Discovering of Key Ideas in Knowledge Building

*Teemu Leinonen, Otso Virtanen, Kai Hakkarainen, Giedre Kligyte*

- Simulating Pedagogical Agents in a Virtual Learning Environment  
*Silje Jondahl, Anders Mørch*
- Support for Object-Oriented Model Construction  
*Jakob Tholander, Klas Karlgren*
- AudioExplorer: Multiple Linked Representations for Convergence  
*Jochen Rick*
- A NetSeminar Design for Team-Based Learning in Professional Development Schools  
*Gary Obermeyer*
- StoneSoup: A Contextualized Portfolio System  
*Jenny Robins*
- Transparent Latecomer Support for Web-Based Collaborative Learning Environments  
*Torsten Illmann, Rene Thol, Michael Weber*
- Integrating Palm Hand-held Technology into the Web-based Inquiry Science Environment (WISE)  
*James D. Slotta, Douglas B. Clark, Britte Cheng*
- Use of the CANTOR System for Collaborative Learning in Medical Visual Object Recognition  
*Hans H. K. Andersen, Verner Andersen, Birgit G. Skov*
- Using Pedagogical Agents to Support Collaborative Distance Learning  
*Patricia Jaques, Adja Andrade, João Jung, Rafael Bordini, Rosa Vicari*
- Networked PDAs in a Community of Learners  
*Knut Lundby, Ole Smørdal, Anniken Larsen, Annita Fjuk*
- NetWorked Learning Systems  
*Herbert Remidez, Joshua S. Gottdenker, James M. Laffey, Dale R. Musser, Ran-Young Hong, Linda Espinosa, Christopher J. Amelung*

## ***B. Quantitative Analyses of Case Studies and their Implications for CSCL***

- Discussant: Pierre Dillenbourg*
- Solo, Together, Apart: Evaluating Modes of CSCL for Learning a Problem Solving Task  
*Tim Wright, Andy Cockburn*
- Text Forum Features for Small Group Discussions with Facet-Based Pedagogy  
*Steven Tanimoto, Adam Carlson, Justin Husted, Earl Hunt, Josef Larsson, David Madigan, Jim Minstrell*
- Elementary Students' Perceptions of Social Networks: Development, Experience, and Equity in Collaborative Software Design Activities  
*Yasmin B. Kafai*
- Promoting the Coordination of Computer-mediated Interdisciplinary Collaboration  
*Nikol Rummel, Hans Spada, Fabian Hermann, Franz Caspar, Katrin Schornstein*
- An Experiment using Software Agents for Dialogue Analysis in Collaborative Distance Learning 560  
*Patricia Augustin Jaques, Flavio Moreira de Oliveira, Rosa Maria Vicari*
- Using EPO to Stimulate Learning in the Health Sciences  
*Leo Plugge, Paul Kirschner, Gaby Lutgens, Jan Vermunt*
- Synchronizing Group Interactions with Lecturing Video in Agent-based Asynchronous Virtual Classroom  
*Hiroaki Ogata, Kenji Matsuura, Yoneo Yano*
- Collaborative Assessment as a Learning Process in E-learning  
*David McConnell*
- Developing Cognitive Prerequisites to Support Inquiry Learning in a Computer Environment  
*Alla Keselman, Deanna Kuhn*

- Interactive Representations for Reflection in Group Simulations  
*Mike Dobson, Julie-Ann Sime, Michael Pengelly*
- Building and Maintaining the Common Ground in Web-Based Interaction  
*Kati Mäkitalo, Päivi Häkkinen, Piritta Salo, Sanna Järvelä*
- Fostering Computer Supported Collaborative Learning with Cooperation Scripts and Scaffolds  
*Armin Weinberger, Frank Fischer, Heinz Mandl*
- Multiplicity & Flexibility as Design and Implementation Features – A Case Study of a Web-Based CL Community for Diverse Learners  
*C. Y. Janey Wang, Paul E. Resta*
- Structuring Group Learning within a Web-based Science Inquiry Program  
*Louise Yarnall, William R. Penuel*
- Developing Online Communities of Practice in Preservice Teacher Education  
*Melissa J. Poole*
- Supporting Discourse in a Synchronous Learning Environment: The Learning Protocol Approach  
*Hans-Rüdiger Pfister, Martin Mühlpfordt*
- Coaching Collaboration in a Computer-Mediated Learning Environment  
*María de los Angeles Constantino-González, Daniel D. Suthers*
- Analyzing Sequential Data in Computer-Supported Collaborative Learning  
*Dietmar Janetzko, Frank Fischer*
- Evolving Shared Experience in Distributed Learning Environments  
*Grégory Bourguin, Anders Mørch*
- Modelling and Supporting Learning Activities in a Computer-integrated Classroom  
*Andreas Lingnau, Ulrich Hoppe*
- The Digital Workbook Students Constructing their Curriculum  
*Håkon Tolsby*
- Advancing Understanding of Learning in Interaction: How Ways of Participating Can Influence Joint Performance and Learning  
*Brigid Barron, David Sears*
- Supporting Children’s Collaborative Authoring: Practicing Written Literacy While Composing Oral Texts  
*Mike Ananny*
- Using “Thinking Tags” with Kindergarten Children: A Dental Health Simulation  
*Gail Andrews, Kimberley A. MacKinnon, Susan Yoon*
- Presumptive Literacies in Technology-Integrated Science Curriculum  
*Kimberley P. Williams, Louis M. Gomez*
- Task and Interaction Regulation in Controlling a Traffic Simulation  
*Patrick Jermann*
- Proximity and View Awareness to Reduce Referential Ambiguity in a shared 3D Virtual Environment  
*David Ott, Pierre Dillenbourg*
- Intentional Integration Supported by Collaborative Reflection  
*Miyake, N., Masukawa, H., Yuasa, K., Shirouzu, H.*
- Components of an Optimal Online Environment  
*Christine Alexander*
- Webtanks for Knowledge Management: Web-based Collaborative Learning Environment  
*Zann Gill*



## **C. Qualitative Analyses of Case Studies and their Implications for CSCL**

*Discussant: Curt LeBaron*

Supporting Chinese Distance Learners through Computer-Mediated Communication – Revisiting Salmon’s Model

*Peter J Smith, Swee Noi Smith*

Design Experiments for Integrating a CSCL Technology into Japanese Elementary Science Education

*Jun Oshima, Ritsuko Oshima, Isao Murayama, Shigenori Inagaki, Hayashi Nakayama, Etsuji Yamaguchi, Makiko Takenaka*

Examining Synchronous Tutoring in a Virtual World

*Maria Beatrice Ligorio, Alessandra Talamo, Robert-Jan Simons*

Minority Students’ Participation in a Knowledge Building Community: A Sociocultural Perspective

*Anita Slater, Jan van Aalst*

Working Hard in the ‘Office’: An Ethnomethodological Study of On-line Workshops

*Jacki O’Neill, David Martin Hasan Al-Matrouk David Wastell*

Considering Technical, Social & Organizational Contexts in Systems to Support Teacher Learning

*Greg Shrader, Robb Lindgren, Neera Waingankar, Ryan Daily, Louis Gomez*

Facilitating Knowledge Convergence in Videoconferencing Environments: The Role of External Representation Tools

*Frank Fischer, Heinz Mandl*

Network and Content Analysis in an Online Community Discourse

*Maarten de Laat*

Connecting Formal and Informal Discourses to Create Yet Another Zone of Learning

*Hideyuki Suzuki, Hideo Funaoi*

Disinhibition in a CSCL Environment

*James M. Hudson, Amy Bruckman*

Studying Social Aspects of Computer-Supported Collaboration with a Mixed Evaluation Approach

*A. Martínez, Y. Dimitriadis, B. Rubia, E. Gómez, I. Garrachón, J. A. Marcos*

Rich Social Interaction in a Synchronous Online Community for Learning

*Deborah Tatar, James Gray, Judith Fusco*

Pianos, not Orchestras

*Jochen Rick*

The Ethnography of Distributed Collaborative Learning

*Frode Guribye, Barbara Wasson*

Walk a Mile in Students' Shoes – An Approach to Faculty Development on Integrating Web-Based Collaborative Learning into Instruction

*C. Y. Janey Wang*

Presuppositions about "Good Communication": An Assessment of Online Discourse

*Susan Bagley Koyle, Mark Aakhus*

Distributed CSCL/T in a Groupware Environment

*Simon B. Heilesen, Mia Cudrio Thomsen, Robin Cheesman*

Ethnomethods as Resources for Developing CVEs in the ITCOLE Project

*Alessandra Talamo, Maria Beatrice Ligorio*

Continuous Evaluation of Web-based Cooperative Learning: The Conception and Development of an Evaluation Toolkit

*Shirley Holst, Torsten Holmer*

Interaction Repertoire in a Distance Education Community

*Lars Svensson*

- Multi-Dimensional Tracking in Virtual Learning Teams An Exploratory Study  
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