To see the world and a grain of sand:
Learning across levels of space, time and scale

10th International Conference of
Computer Supported Collaborative Learning
Conference Program
Organizers

Sponsors

CSCL 2013

Conference Chair
Sachana Pun tâm bêker, University of Wisconsin – Madison

Program Chairs
Nikol Rummel, Ruhr University Bochum, Institute of Educational Research
Maru Kapur, National Institute of Education of Singapore
Mitchell Nathan, University of Wisconsin – Madison

Graphic Designer
Alyson Casey – Wisconsin Union, University of Wisconsin – Madison

Conference Planner
Jill Schmitz – Wisconsin Union, University of Wisconsin – Madison
Computer Supported Collaborative Learning

University of Wisconsin - Madison
June 2013
Welcome

We are delighted to welcome you to the 10th International Conference on Computer Supported Collaborative Learning (CSCL) hosted by the University of Wisconsin-Madison, USA. The CSCL conference is a biannual, multidisciplinary, international meeting sponsored by the International Society for the Learning Sciences (ISLS) drawing researchers from psychology (educational, social, developmental, cognitive, linguistic, cultural-historical), the social sciences (anthropology, sociology, communication studies, philosophy of language), and design disciplines (computer and information science, curriculum and didactics), as well as researchers from AI and cognitive science.

Learning Sciences (ISLS) drawing researchers from psychology (educational, social, developmental, cognitive, linguistic, cultural-historical), the social sciences (anthropology, sociology, communication studies, philosophy of language), and design disciplines (computer and information science, curriculum and didactics), as well as researchers from AI and cognitive science.

The University of Wisconsin-Madison is an appropriate place to host such an international gathering. Education research and technological advancements for the betterment of society have long been a part of the activities that take place along the shores of beautiful Lake Mendota. The Wisconsin Center for Education Research, founded in 1964, is one of the oldest and largest education research centers in the world, with education funding of about $40 Million per year. Madison is a hotbed of educational technology research and development, and host to the annual Games + Learning + Society conference each summer. The beautiful setting and intellectually vibrant community provide a natural synergy with the presentations and scholarly interactions that take place at CSCL.

Our conference theme for CSCL 2013 is “To see the world and a grain of sand: Learning across levels of space, time, and scale.” The title of our conference theme, inspired by (and modified from) William Blake’s poem “Auguries of Innocence” reflects the unique aspect of CSCL in which interactions and learning need to be understood, supported and analyzed at multiple levels. We see the theoretical, methodological and technological issues of addressing learning at multiple levels to be highly relevant to current research in CSCL, and in developing emerging epistemological and methodological issues that will shape our intellectual efforts well into the future.
This theme is both important and timely, as noted by researchers in the field through several workshops and presentations at previous ISLS conference and relevant journals. At CSCL 2013, this theme is addressed through three keynote talks, which include talks by Josep Call (Max Planck Institute for Evolutionary Anthropology, Germany), Kori Inkpen (Microsoft Research, USA), and Justine Cassell (Carnegie Mellon University, USA). Additionally, our conference theme will be showcased in an invited plenary methods symposium, in pre-conference workshops as well as multiple papers and posters.

The CSCL 2013 conference comprises two days of pre-conference events with workshops and tutorials, as well as special workshops for early career researchers and doctoral students, and the main conference, lasting three days. The conference is planned to be a full and stimulating program of scholarly and social events. The main conference program comprises of 69 full papers, 52 short papers, 83 posters, 5 symposia, 5 panels, and 9 demos. The program also includes a doctoral consortium, and early career workshop and 9 preconference workshops.

A novel aspect of this year’s conference is that the publication format and the presentation format are decoupled. As in past CSCL conferences, authors submitted full papers, short papers and posters to be considered for publication. At the time of submission, authors were asked to express their preference for a presentation format. The reviewers and the program committee also made recommendations as to the format. Presentation format was assigned in order to maximize the interactive conference experience, balanced by considerations of the nature of the work, author preferences, and the program committee’s review process.

An important presentation format that we introduced is the interactive session format for papers, which has been designed as a collaborative format to allow for maximum interaction between authors and audience, in the spirit of collaborative learning! In every interactive session, each of four presenters give a brief 10-minute presentation, followed by 50 minutes of interaction at distributed stations. During this time, authors might bring questions to discuss with members of the audience, or bring supplementary materials for people to see, touch, and play with at their station. For the program, papers were grouped thematically by presentation format, not by publication format. Both lecture and interactive session types in the program thus include full as well as short papers.

We would like to thank the many people who contributed in several ways to this conference. Thanks go to the Wisconsin Center for Education Research, the University of Wisconsin-Madison, School of Education, and the Educational Psychology department for their generous support for this event. Also, many thanks go to the international steering committee, and the reviewers, whose effort has made this event possible.

Sadhana Puntambekar, CSCL Conference Chair
Nikol Rummel, Manu Kapur and Mitchell Nathan, Program co-chairs
Steering Committee

**Conference Chair**
Sadhana Puntambekar, *University of Wisconsin, Madison, USA*

**Program Co-Chairs**
Nikol Rummel, *Ruhr-Universität, Bochum, Germany*
Manu Kapur, *National Institute of Education, Singapore*
Mitchell Nathan, *University of Wisconsin, Madison, USA*

**International Relations Co-Chairs**
Chris Hoadley, *New York University, USA*
Nancy Law, *University of Hong Kong, China*
Sten Ludvigsen, *InterMedia, University of Oslo, Norway*

**Preconference Workshops and Tutorials Co-Chairs**
Gijsbert Erkens, *Utrecht University, Netherlands*
Chee-Kit Looi, *Nanyang Technological University, Singapore*

**Demos Co-Chairs**
Richard Halverson, *University of Wisconsin, Madison, USA*
Hans Spada, *University of Freiburg, Germany*
Daniel Suthers, *University of Hawai‘i, USA*

**Doctoral Consortium Co-Chairs**
Frank Fischer, *Ludwig-Maximilians-Universität München, Germany*
Erica Halverson, *University of Wisconsin, Madison, USA*
Heisawn Jeong, *Hallym University, South Korea*
Rosemary Luckin, *Institute of Education, University of London, England*

**Special Sessions**
Cindy Hmelo-Silver, *Rutgers University, USA*
Bilge Mutlu, *University of Wisconsin, Madison, USA*

**Consultants**
Pierre Dillenbourg, *École Polytechnique Fédérale de Lausanne, Switzerland*
Susan Goldman, *University of Illinois, Chicago, USA*
Paul Kirschner, *Open University, Netherlands*
Tim Koschmann, *Southern Illinois University, USA*
Naomi Miyake, *University of Tokyo, Japan*
Peter Reimann, *University of Sydney, Australia*
Nancy Butler Songer, *University of Michigan, USA*
Gerry Stahl, *Drexel University, USA*

**Early Career Workshop Co-Chairs**
Kristine Lund, *University of Lyon, France*
Carolyn P. Rosé, *Carnegie Melon University, USA*
Iris Tabak, *Ben Gurion University of the Negev, Israel*
Why Do Apes Cooperate?

Cooperation is ubiquitous in the animal kingdom and yet, humans have turned cooperation into one of their defining features. Our level of cooperation has become such that members of our species can cooperate with large numbers of genetically unrelated partners for extended periods of time, in some cases spanning generations. How did this come about over evolutionary time? In this talk, I will turn to our closest living relatives, the great apes, in an attempt to throw some light into this question. I will explore the prosocial behavior of the great apes defined as one individual doing something resulting in the benefit of another. In particular, I will present data on helping and collaboration in chimpanzees, bonobos, and orangutans and compare it with data on children presented with comparable tasks. I will use these comparative data to uncover the socio-ecological and motivational factors that determine the emergence of cooperation in humans and nonhuman apes.

Josep Call
Wolfgang Köhler Primate Research Center,
Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany

Connecting Kids: The Future of Video

Understanding how kids connect with video may hold the key to delivering the long-awaited promise of video communication. Children’s play is rich, creative and imaginative and research shows that children’s play easily transcends distance through the use of video. And remarkably, children are extremely comfortable interacting over video. This talk highlights several recent projects that demonstrate children’s rich, social interactions using video to connect with friends and family, regardless of whether they live in the same neighbourhood, or on the other side of the world. As these technologies become embedded into the fabric of daily life, video will transform children’s social interactions in both learning and play, enabling them to share rich experiences in ways not possible with current technologies.

Kori Inkpen
Microsoft Research, USA
Connection Machines: The Role of Rapport in Computer Supported Collaborative Learning

In thinking about the ways in which computers can support learning we often concentrate on the task or cognitive aspects of the collaboration between human and machine. However, the social nature of some of the best kinds of human-human learning interactions does not need to be left behind in human-computer collaborative learning, and understanding the social nature of human-human peer collaborative learning can help us to design computational systems that are most effective in real world contexts. To that end, in this talk I report on a series of studies that look at the building of rapport between humans over time, and between humans and computational systems. I look at the effects of this rapport building on peer learning among young children, junior high school students, and adults, when the learning partners are actual human peers and computer peers. From the results of these studies I draw conclusions about the need for studies of actual human-human interaction to inform the design of collaborative learning technologies and, more generally, the need for models of the interaction between humans and computers to draw on not just technical but also social and cultural phenomena.
### CONFERENCE OVERVIEW

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<thead>
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<th>Sunday, June 16, 2013</th>
<th>Monday, June 17, 2013</th>
<th>Tuesday, June 18, 2013</th>
<th>Wednesday, June 19, 2013</th>
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<td><strong>8:00-6:00</strong></td>
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<td>Pre-Conference</td>
<td>Keynote #2 - Keri Inkpen Quinn</td>
<td>Parallel Session #3 (90 min)</td>
<td>Parallel Session #7 (90-min)</td>
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<td>Pre-Conference</td>
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<td>10:30-12:00</td>
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<td>Parallel Session #1 (90 min)</td>
<td>Parallel Session #4 (90 min)</td>
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<td>Lunch (One Hour)</td>
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<td>1:00-3:00</td>
<td>Pre-Conference</td>
<td>ISLS Committee Meetings</td>
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<td>Doctoral Consortium</td>
<td>Workshops &amp; Tutorials</td>
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<td>Early Career Workshop</td>
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<tr>
<td>3:30-6:00</td>
<td>ISLS Committee Meetings</td>
<td>Keynote #3 - Justine Cassell</td>
<td>Parallel Session #6 (90-min)</td>
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<td>3:30-4:30</td>
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<tr>
<td>5:00-7:00</td>
<td>Opening Keynote #1 - Josep Call</td>
<td>Poster Session #1 (120-min) &amp; Evening Reception</td>
<td>Poster Session #2 (120-min) &amp; Evening Reception</td>
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<td>Announcement Award Finalists</td>
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<td>7:00-10:00</td>
<td>Welcome Reception</td>
<td>Beer &amp; Brats on the Lakefront Terrace</td>
<td>Conference Banquet</td>
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Registration

NOTE: All pre-conference workshops (except the doctoral consortium and Early Career Workshop) will be held in the Education Building. All main conference events, starting with the opening keynote, will be held in the Memorial Union.

Registration Hours and Location

Saturday, June 15
8:00 AM - 5:00 PM
Education Building- 1st floor Lobby (For Workshop participants only)
Memorial Union - Annex Room (DC and ECW participants/General registration)

Sunday, June 16
8:00 AM - 5:00 PM
Education Building - 1st floor Lobby (For Workshop participants only)
Memorial Union - Annex Room (DC and ECW participants/General registration)

Monday, June 17
8:00 AM - 5:00 PM
Memorial Union - Annex Room

Tuesday, June 18
8:00 AM - 5:00 PM
Memorial Union - Annex Room

Wednesday, June 19
8:00 AM - 3:30 PM
Memorial Union - Annex Room
## ISLS Meeting Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td><strong>Sunday, June 16</strong></td>
<td>3:30 PM – 4:30 PM</td>
<td>ISLS Membership Committee closed meeting</td>
<td>Inn Wisconsin (West)</td>
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<td>ISLS Education Committee closed meeting</td>
<td>Old Madison (West)</td>
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<td>ISLS Publications Committee closed meeting</td>
<td>Capital View</td>
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<td>NAPLES meeting</td>
<td>Beefeater</td>
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<tr>
<td><strong>Monday, June 17</strong></td>
<td>12:00 PM – 1:30 PM</td>
<td>ijCSCL Board Meeting</td>
<td>Profile</td>
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<td></td>
<td>Doctoral Consortium and Early Career Workshop reunion</td>
<td>Reception Room</td>
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<tr>
<td><strong>Tuesday, June 18</strong></td>
<td>12:00 PM – 1:30 PM</td>
<td>CSCL Community Open Meeting</td>
<td>Inn Wisconsin</td>
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<td><strong>Tuesday, June 18</strong></td>
<td>12:00 PM – 1:00 PM</td>
<td>ISLS Board closed meeting</td>
<td>Inn Wisconsin</td>
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<tr>
<td><strong>Wednesday, June 19</strong></td>
<td>12:00 PM – 1:00 PM</td>
<td>NAPLES optional meeting</td>
<td>Inn Wisconsin</td>
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</table>
CSCL 2013 Program

Pre-conference events: June 15 and June 16, 2013

Main Conference: June 17 – June 19, 2013
## Schedule

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<th>Time</th>
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<tr>
<td>8:00 AM - 8:30 AM</td>
<td>Breakfast</td>
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<td>8:30 AM - 10:00 AM</td>
<td>Preconference workshops, Doctoral Consortium, Early Career Workshop</td>
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<td><em>(see detailed schedule)</em></td>
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<td>10:00 AM - 10:30 AM</td>
<td>Morning Break</td>
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<td>10:30 AM - 12:00 PM</td>
<td>Preconference workshops, Doctoral Consortium, Early Career Workshop, <em>cont’d</em></td>
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<tr>
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<td>12:00 PM - 1:00 PM</td>
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<td>Preconference workshops, Doctoral Consortium, Early Career Workshop, <em>cont’d</em></td>
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<td>3:30 PM - 5:00 PM</td>
<td>Preconference workshops, Doctoral Consortium, Early Career Workshop, <em>cont’d</em></td>
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</table>
Early Career Workshop
Old Madison (East)

Chairs
Kristine Lund, CNRS, University of Lyon, France
Iris Tabak, Education Department Ben-Gurion University; Beer Sheva, Israel
Carolyn P. Rosé, Language Technologies Institute and Human-Computer Interaction Institute, Carnegie Mellon University, Pittsburgh, USA

Mentors
Kate Bielaczyc, Clark University, USA
Louis Gomez, University of California, Los Angeles, USA
Janet Kolodner, Georgia Institute of Technology/The National Science Foundation, USA
Timothy Koschmann, Southern Illinois University, USA
Nancy Law, University of Hong Kong
Armin Weinberger, Saarland University, Saarbrücken, Germany

Participants
Betsy DiSalvo, Georgia Institute of Technology
Sean Duncan, Indiana University
Deborah Fields, Utah State University
Mi Song Kim, Nanyang Technological University
Crystle Martin, University of California, Irvine
Camillia Matuk, University of California, Berkeley
Omid Noroozi, Wageningen University
Luis P. Prieto, Universidad de Valladolid
Beat Schwendimann, University of Sydney
Carmen Smith, University of Vermont

Doctoral Consortium
Inn Wisconsin (East)

Chairs
Heisawn Jeong, Hallym University, South Korea
Erica Halverson, University of Wisconsin-Madison
Frank Fischer, Ludwig Maximilian University of Munich

Mentors
Kim Gomez, University of California at Los Angeles
Eleni Kyza, Cyprus University of Technology
Marcia Linn, University of California at Berkeley
Ming Ming Chiu, SUNY Buffalo
Pre-Conference Workshop

Across Levels of Learning: How Resources Connect Levels of Analysis
L150, L151, L155 Education Building
CHAIRS
Gerry Stahl, Drexel University, Philadelphia, USA
Heisawn Jeong, Hallym University, South Korea
Sten Ludvigsen, University of Oslo, Norway
R. Keith Sawyer, Washington University in St. Louis, USA
Daniel D. Suthers, University of Hawaii, USA

From Data Sharing to Data Mining: A Collaborative Project to Create Cyber-Infrastructure to Support and Improve Design Based Research in the Learning Sciences
198, 245 Education Building
CHAIRS
Alan J. Hackbarth, University of Wisconsin Colleges, USA;
Sharon J. Derry, University of North Carolina – Chapel Hill, USA;
Sadhana Puntambekar, University of Wisconsin - Madison, USA

Human-Computer Interaction and the Learning Sciences
L185, L177, L173 Education Building
CHAIRS
Jochen "Jeff" Rick, Saarland University, Germany
Michael Horn, Northwestern University, USA
Roberto Martinez-Maldonado, University of Sydney, Australia

Measuring Collaborative Thinking Using Epistemic Network Analysis
345
Chairs
David Williamson Shaffer, University of Wisconsin-Madison
Chandra Orrill, University of Massachusetts Dartmouth
Golnaz Arastoopour, University of Wisconsin-Madison

DUET 2013: Dual Eye Tracking in CSCL
L159
CHAIRS
Patrick Jermann, Ecole Polytechnique Fédérale de Lausanne, Switzerland
Darren Gergle, Northwestern University, USA
Roman Bednarik, University of Eastern Finland, Finland
Pierre Dillenbourg, Ecole Polytechnique Fédérale de Lausanne, Switzerland
# Schedule

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<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
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<td>Preconference workshops, Doctoral Consortium, Early Career Workshop</td>
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</tbody>
</table>
Early Career Workshop 8:30 AM – 5:00 PM
Old Madison (East)

Chairs
Kristine Lund, CNRS, University of Lyon, France
Iris Tabak, Education Department; Ben-Gurion University; Beer Sheva, Israel
Carolyn P. Rosé, Language Technologies Institute and Human-Computer Interaction Institute, Carnegie Mellon University, Pittsburgh, USA

Mentors
Kate Bielaczyc, Clark University, USA
Louis Gomez, University of California, Los Angeles, USA
Janet Kolodner, Georgia Institute of Technology/The National Science Foundation, USA
Timothy Koschmann, Southern Illinois University, USA
Nancy Law, University of Hong Kong
Armin Weinberger, Saarland University, Saarbrücken, Germany

Doctoral Consortium 8:30 AM – 5:00 PM
Inn Wisconsin (East)

Chairs
Heisawn Jeong, Hallym University, South Korea
Erica Halverson, University of Wisconsin-Madison
Frank Fischer, Ludwig Maximilian University of Munich

Mentors
Kim Gomez, University of California at Los Angeles
Eleni Kyza, Cyprus University of Technology
Marcia Linn, University of California at Berkeley
Ming Ming Chiu, SUNY Buffalo

Pre-conference Workshop 8:30 AM - 12:00 PM
Designing for Distributed Regulatory Processes in CSCL
L150, L151, L155 Education Building

Chairs
Elizabeth S. Charles, Dawson College, Canada
Mariel Miller, University of Victoria, Canada
Roger Azevedo, McGill University, Montreal, Canada
Allyson Hadwin, University of Victoria, Victoria, Canada
Susanne Lajoie, McGill University, Montreal, Canada

Computer-Supported Collaborative Learning at Work: CSCL@Work -- Bridging Learning and Work
198 Education Building

Chairs
Sean Goggins, Drexel University, USA
Isa Jahnke, Umed University, Sweden
Thomas Hermann, Bochum University, Germany
**Educational Game Design - Prototyping with Purpose**
L159 Education Building
Chairs
Matt Gaydos, University of Wisconsin-Madison, USA
Kurt Squire, Center for Games, Learning & Society/University of Wisconsin-Madison, USA
Dennis Ramirez, Center for Games, Learning & Society/University of Wisconsin Madison, USA
Ryan Martinez, University of Wisconsin-Madison, USA
Clem Samson-Samuel, Center for Games, Learning & Society/University of Wisconsin Madison, USA

**PISA: How Will Collaborative Problem Solving be Assessed at International Scale?**
L185 Education Building
Chairs
Chee-Kit Looi, NIE, Singapore
Pierre Dillenbourg, EPFL, Switzerland

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<thead>
<tr>
<th>Committee Meetings</th>
<th>3:30 PM – 4:30 PM</th>
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<tbody>
<tr>
<td>ISLS Membership Committee closed meeting</td>
<td>Inn Wisconsin (West)</td>
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<tr>
<td>ISLS Publications Committee closed meeting</td>
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<td>NAPLES meeting</td>
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**Keynote 1**
5:00 PM – 7:00 PM
Great Hall

**Welcome!**
Julie Underwood, Dean, School of Education
Adam Gamoran, Director, WCER

**Why Do Apes Cooperate?**
Josep Call, Wolfgang Köhler Primate Research Center, Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany
Chair: Nikol Rummel, Ruhr-Universität, Bochum, Germany

**Opening Reception**
7:00 PM – 10:00 PM
Tripp Commons
Keynote 2
Great Hall

Welcome!
David Kaplan, Chair, Department of Educational Psychology

Connecting Kids: The Future of Video
Kori Inkpen, Microsoft Research, USA

Chair: Sadhana Puntambekar, University of Wisconsin, Madison, USA

Morning Break
10:00 AM - 10:30 AM
Tripp Commons

Parallel Session 1
10:30 AM - 12:00 PM
Lecture Session: Affect & Perspective Taking
Reception Room

Chair: Fadoua Ouamani

How do Students Use Socio-Emotional Markers for Self-Reflection on Their Group Work in CSCL Settings? A Study with Visu: A Synchronous and Delayed Reflection Tool (short paper)
Elise Lavoué, Gaëlle Molinari, Safè Khezami, Yannick Prié

Gaëlle Molinari, Guillaume Chanel, Mireille Bétrancourt, Thierry Pun, Christelle Bozelle

Learner-Support Agents for Collaborative Interaction: A Study on Affect and Communication Channels (full paper)
Yugo Hayashi

Influence of Epistemological Beliefs and Goal Orientation on Learning Performance in CSCL (full paper)
Kui Xie, Kun Huang
Monday, June 17

Lecture Session: Multimodal Communication
Beefeater

Chair: Garrett Smith

*Group Cognition as Multimodal Discourse (short paper)*
Wenjuan Li, Mara V. Martinez

*Multimodal Interactions with Virtual Manipulatives: Supporting Young Children’s Math Learning (short paper)*
Seungho Paek, Daniel Hoffman, John B. Black

*Juxtaposing Practice: Uptake as Modal Transposition (full paper)*
Richard Medina, Daniel Suthers

*Interface Tangibility and Gesture in Mediating Individual Agency Within Group Spatial Problem Solving With an Ecosystem Simulation (full paper)*
Helen Kwah, Leilah Lyons, Dixie Ching

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Lecture Session: Online Discussion 1
Old Madison

Chair: Jeremy Dietmeier

*Navigating Through Controversial Online Discussions: The Influence of Visualized Ratings (full paper)*
Jürgen Buder, Christina Schwind, Anja Rudat, Daniel Bodemer

*Reciprocity in Student Online Discussions (short paper)*
Shitian Shen, Jihie Kim, Jaebong Yoo

*The Blogosphere as Representational Space (full paper)*
Richard Alterman, Bjorn Levi Gunnarsson

*Supporting Active Wiki-Based Collaboration (full paper)*
Adam Eck, Leen-Kiat Soh, Chad Brassil
**Interactive Session**  
**Inn Wisconsin**

Chair: Rotem Abdu

**Repurposing Everyday Technologies for Math and Science Inquiry (full paper)**  
Sarah Lewis, Wendy Ju

**Fostering Math Engagement with Mobiles (short paper)**  
Lee Martin, Tobin White, Angelica Cortes, Jason Huang

**Resources for Connecting Levels of Learning (full paper)**  
Gerry Stahl, Diler Öner

**Visualizing and Analyzing Productive Structures and Patterns in Online Communities Using Multilevel Social Network Analysis (short paper)**  
Hon Jie Teo, Aditya Johri, Raktim Mitra

---

**Symposium**  
**Great Hall**

Chair: Nancy Law

**Are CSCL and Learning Sciences Research Relevant to Large-Scale Educational Reform?**  
Nancy Law, Naomi Miyake, Chee-Kit Looi, Riina Vuorikari, Yves Punie, Marcia Linn

---

**Demo Session**  
**Founders**

Chair: Rich Halverson

**Dynalogue: Teacher Candidates Collaborating to Learn and Teach Proportional Reasoning**  
Jody Siker, Janet Bowers, Jeremy Roschelle, Susan Courey

**Towards Teaching Analytics: Repertory Grids for Formative Assessment (RGFA)**  
Ravi Vatrapu, Peter Reimann, Abid Hussain, Kiran Kocherla

**The Metafora Tool: Supporting Learning to Learn Together**  
Reuma De-Groot, Toby Dragon, Manolis Mavrikis, Andreas Harrer, Kerstin Pfahler, Bruce M. McLaren, Rupert Wegerif, Chronis Kynigos, Baruch Schwarz
Monday, June 17

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*IfCSCL Editorial Board Meeting*

Profile

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<td>Old Madison</td>
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Chair: Dan Tetrick

*Using Automated and Fine-Grained Analysis of Pronoun Use as Indicators of Progress in an Online Collaborative Project (full paper)*
Kate Thompson, Shannon Kennedy-Clark, Nick Kelly, Penny Wheeler

*Cohesion-Based Analysis of CSCL Conversations: Holistic and Individual Perspectives (full paper)*
Mihai Dascalu, Stefan Trausan-Matu, Philippe Dessus

*Student Strategies for Collaborative Note-Taking and the Influence of Floor-Control (short paper)*
Gregory Dyke, Kristine Lund

*Understanding Collaborative Program Comprehension: Interlacing Gaze and Dialogues (full paper)*
Kshitij Sharma, Patrick Jermann, Marc-Antoine Nüssli, Pierre Dillenbourg
Lecture Session: Science Education
Beefeater

Chair: Elizabeth Pier

Learning with Collaborative Inquiry: A Science Learning Environment for Secondary School Students (full paper)
Daner Sun, Chee-Kit Looi, Evelyn Teo

Collaboratively Generating and Critiquing Technology-Enhanced Concept Maps to Improve Evolution Education (short paper)
Beat Schwendimann

Effects of Robots’ Revoicing on Preparation for Future Learning (full paper)
Hajime Shirouzu, Naomi Miyake

Variation in Other-Regulation and the Implications for Competence Negotiation (full paper)
Karlyn R. Adams-Wiggins, Toni Kempler Rogat

Interactive Session
Inn Wisconsin

Chair: Dana Gnesdilow

Digital Scholarly Storytelling: Making Videos to Explain Science (short paper)
Rucha Modak, Chris Millet

CSCL Scripts: Interoperating Table and Graph Representations (short paper)
Péricles Sobreira, Pierre Tchounikine

Supporting School Group Visits to Fine Arts Museums in the 21st Century: A CSCL Concept for a Multi-Touch Table Based Video Tool (full paper)
Moritz Borchers, Philipp Mock, Carmen Zahn, Jörg Edelmann, Friedrich W. Hesse

The Contagious Effect of Dialogism with New Technologies (short paper)
Benzi Slakmon, Baruch B. Schwarz;
Monday, June 17

**Symposium**
Great Hall

Chair: Susan Yoon

*Designing to Improve Biology Understanding Through Complex Systems in High School Classrooms: No Simple Matter!*
Susan Yoon, Eric Klopfer, Josh Sheldon, Ilana Schoenfeld, Daniel Wendel, Joyce Wang, Hal Scheintaub, David Reider

**Invited Panel**
Reception Room

Chair: Pierre Dillenbourg

*How Do We Measure Collaborative Skills Across 60+ Countries and Economies?*
Art Graesser, Patrick Griffins, Friedrick Hesse, Jim Pellegrino

**Afternoon Break**

Tripp Commons

**Keynote 3**

Great Hall

*Connection Machines: The Role of Rapport in Computer Supported Collaborative Learning*
Justine Cassell, Human Computer Interaction Institute, Carnegie Mellon University, USA

Chair: Mitchell Nathan, University of Wisconsin, Madison, USA
Supporting Feedback Uptake in Online Peer Assessment
Alexandra L. Funk, Astrid Wichmann, Nikol Rummel

Understanding Participation and Persistence in Online Peer-To-Peer Learning
Sarah Webster, Alisha Alam, June Ahn, Brian Butler

Collaborative Learning in Virtual Environments: Role-Based Exploration of Causality in Ecosystems over Time and Scale
Shari Metcalf, Amy M. Kamarainen, Tina Grotzer, Chris Dede

When Ideas Learn How to Fly: Children at the Intersection of Formal and Informal Learning Settings
Anne Weibert, Konstantin Aal

Can We Increase Students’ Motivation to Learn Science by Means of Web-Based Collaborative Inquiry?
Annelies Raes, Tammy Schellens

Designing Interactive Scaffolds to Support Teacher-Led Inquiry of Complex Systems Concepts
Joshua A. Danish, Asmalina Saleh, Luis A. Andrade

Comparing “in the Wild” Studies With Laboratory Experiments: A Case of Educational Interactive Tabletops
Bertrand Schneider, Consuelo Valdes, Kelsey Temple, Chia Shen, Orit Shaer

Evaluating Virtual Collaboration Over Time – A Pilot Field Study
Birgitta Kopp, Heinz Mandl

Promisingness Judgments as Facilitators of Knowledge Building
Bodong Chen, Marlene Scardamalia, Alisa Acosta, Monica Resendes, Derya Kici

Extending the Reach of Embodied Interaction in Informal Spaces
Brian Slattery, Leilah Lyons, Brenda López Silva, Priscilla Jimenez
Navigating Online Learning Environments in the Classroom
Caitlin K. Martin, Brigid Barron

The Long and Winding Road to Collaborative Observational Practice
Catherine Eberbach, Cindy Hmelo-Silver, Yawen Yu

Motivated Interactions with Digital Games in a Science Center
Cathy Tran, Ole Smørdal

Transferring CSCL Findings to Face-To-Face Teacher Practice
Celia Kaendler, Michael Wiedmann, Nikol Rummel, Timo Leuders, Hans Spada

Beyond Sociograms Inspection: What Social Network Analysis has to Offer to Measure Cohesion in CSCL
Alejandra Martínez-Monés, Christophe Reffay, Christopher Teplovs

The Radix Endeavor: Designing A Massively Multiplayer Online Game around Collaborative Problem Solving in STEM
Jody Clarke-Midura, Louisa Rosenheck, Jason Haas, Eric Klopfer

Systematic Review and Meta-Analysis of STEM Simulations
Cynthia D’Angelo, Christopher Harris, Daisy Rutstein

Treasure-HIT: Supporting Outdoor Collaborative Activities with Mobile Treasure Hunt Games
Dan Kohen-Vacs, Miky Ronen, Shavit Cohen

Levels of Articulated Reasoning In Spontaneous Face-To-Face Collaborations and Online Forum Postings Surrounding a Single-Player Physics Game in Public Middle School Classrooms
Douglas Clark, Blaine Smith, Stephanie Zuckerman, Caroline Wilson, Joy Ssebikindu, Grant van Eaton

Towards Collaborative Argumentation in “Losing the Lake
E. Michael Nussbaum, Marissa C. Owens, Abeera P. Rehmat, Jacqueline Cordova

DALITE: Bringing “Peer-Instruction” Online
Elizabeth Charles, Chris Whittaker, Michael Dugdale, Nathaniel Lasry, Sameer Bhatnagar, Kevin Lenton
Idea Development in Multi-Touch and Paper-Based Collaborative Problem Solving
Emma Mercier, Georgia Vourloumi, Steven Higgins

Conceptual Ontology Framework for Socio-Cultural Aware Computer Supported Collaborative Learning Environments
Fadoua Ouamani, Narjès Bellamine Ben Saoud, Riadh Hadj M’tir, Henda Hajjami Ben Ghézala

Using a Graphical Interface to Address New Post Bias in Online Discussion Forums
Farshid Marbouti, Alyssa Friend Wise

Joint Reasoning about Gas Solubility in Water in Modified Versions of a Virtual Laboratory
Göran Karlsson, Michael Axelsson, Maria Sunnerstam, Thommy Eriksson

Discovering Dependencies: A Case Study of Collaborative Dynamic Mathematics
Gerry Stahl

Supporting Science Practices Outdoors with Mobile Devices: Findings from the Tree Investigators Augmented Reality Project
Heather Toomey Zimmerman, Susan M. Land, Lucy R. McClain, Michael R. Mohney, Gi Woong Choi, Fariha H. Salman

A Simulation-Based Approach for Increasing Women in Engineering
Golnaz Arastoopour, Naomi Chesler, David Williamson Shaffer

Multiple Scaffolds to Promote Collective Knowledge Construction in Science Classrooms
Hedieh Najafi, Jim Slotta

Dissecting Video Discussions and Coordination Strategies
I-Han Hsiao, Manav Malhotra, Hui Soo Chae, Gary Natriello

Multiple Effects of Collaborative Mobile Inquiry-Based Learning
Jalal Nouri, Teresa Ceratto-Pargman, Karwan Zetali

SANCTUARY: Asymmetric Interfaces for Collaborative Science Learning In Shared Space(s)
Jason Haas
Supporting Student Choice and Collaborative Decision-Making During Science Inquiry Investigations
Jennifer King Chen

Sociomathematical Participation: Participatory Culture and Mathematics Pre-Service Teacher Education
Jeremiah Holden

DynaLabs for Teachers to Collaborate on Pedagogical Strategies
Jeremy Roschelle, Charles Patton, John Brecht, Janet Bowers, Sue Courey, Elizabeth Murray

That's Me and That's You: Museum Visitors' Perspective-Taking Around an Embodied Interaction Data Map Display
Jessica Roberts, Francesco Cafaro, Raymond Kang, Kristen Vogt, Leilah Lyons, Josh Radinsky

Understanding the Enactment of Principle-Based Designs: Conceptualizing Principle-Based Approaches as Carriers of Principles for Learning
John Ow, Sunhee Paik, Katerine Bielaczyc

Together We can Beat this Game: The Prevalence of Collaborative Learning in Educational Video Game Play
Joshua Halterman, Camellia Sanford

Dynamic of Interaction Among Actors Mediated by the Visibility in an Online Community, What's Up With...?
Juan Hernández, Andrea Montoya, Andrés Mena, Maritza Castro, Johana López

Collaborative Learning through Socially Shared Regulation Supported by a Robotic Agent
Jun Oshima, Ritsuko Oshima

Teenagers Re-design a Collaborative Mobile App to Kindle Motivation for Learning about Energy Consumption
Katerina Avramides, Brock Craft, Rosemary Luckin

Learning at the Seafloor, Looking at the Sky: The Relationship Between Individual Tasks and Collaborative Engagement in Two Citizen Science Projects
Katie DeVries Hassman, Gabriel Mugar, Carsten Østerlund, Corey Jackson

Design in the world AND our work
Richard Reeve, Vanessa Svihla
Early Career Workshop & Doctoral Consortium Reunion

5:00 PM - 6:00 PM

Reception Room

Beer & Brats on the Lakefront Terrace

7:00 PM - 10:00 PM

Tripp Commons & Memorial Union Terrace

Live music by Harmonious Wail!

http://www.wail.com
Parallel Session 3 8:30 AM - 10:00 AM

Lecture Session: Issues in Collaborating with Technology
Reception Room

Chair: Amanda Evenstone

Reflectively Prototyping a Tool for Exchanging Ideas (short paper)
Camillia Matuk, Kevin McElhaney, David Miller, Jennifer King Chen, Jonathan Lim-Breitbart, Hiroki Terashima, Geoffrey Kwan, Marcia Linn

Measuring ‘Framing’ Differences of Single-Mouse and Tangible Inputs on Patterns of Collaborative Learning (full paper)
Luis Andrade, Joshua Danish, Yanin Moreno, Lenin Perez

Identifying Gender Differences in CSCL Chat Conversations (full paper)
Costin-Gabriel Chiru, Traian Rebedea, Stefan Trausan-Matu

Lecture Session: Argumentation
Old Madison

Chair: Matt Gaydos

The Influence of Training in Argumentation on Students’ Individual Learning Outcomes (short paper)
Julia Gressick, Sharon J. Derry

AppleTree: An Assessment-Oriented Framework for Collaboration and Argumentation (short paper)
Wenli Chen, Chee Kit-Looi, Yun Wen, Wenting Xie

Knowledge Organization with Multiple External Representations in an Argumentation Based Computer Supported Collaborative Learning Environment (full paper)
Bahadir Namdar, Ji Shen

Experts Learn More (than Newcomers): An Exploratory Study of Argumentation in an Online Help Forum (full paper)
Hon Jie Teo, Aditya Johri
Lecture Session: Identity & Leadership
Beefeater

Chair: Dan Tetrick

Experiences as Resources for Sense Making: Health Education Students’ I-Positioning in an Online Science Philosophy Course (full paper)
Maarit Arvaja

The Role of Identities in the Process of Knowledge Construction in CSCL Settings (full paper)
Murat Oztok

When Face-to-Face Falls: Opportunities for Social Media to Foster Collaborative Learning (full paper)
Tamara Clegg, Jason Yip, June Ahn, Elizabeth Bonsignore, Michael Gubbels, Becky Lewittes, Emily Rhodes

Youth Roles and Leadership in an Online Creative Community (full paper)
Ricarose Roque, Natalie Rusk, Amos Blanton

Interactive Session
Inn Wisconsin

Chair: Fabrizio Fornara

Complementary Social Network and Dialogic Space Analyses: An E-Discussion Case Study (short paper)
Myriam Sofía Rodríguez Garzón, Reuma De-Groot, Raul Drachman, Luis Facundo Maldonado

‘Co-alienation’ Mediated by Common Representations in Synchronous E-Discussions (full paper)
Baruch B. Schwarz, Yfat Ben-David Kolikant, Maria Mishenkina

Individualistic Appropriation as a Primary Mechanism of Collaborative Conceptual Change: A Case Study (full paper)
Michael Tscholl, John Dowell

Scaffolding a Technical Community of Students through Social Gaming: Lessons from a Serious Game Evaluation (short paper)
Râzvan Rughiniș
Panel
Founders

Chair: Erica Halverson

The MAKE Movement and Connections to the CSCL Community
Erica Halverson, Breanne Litts, Kimberly Sheridan, Trevor Owens, Deborah Fields, Yasmin Kafai, Kyle Peppler, Rafi Santo, Lisa Brahms, Gina Svarovsky

Invited Presidential Symposium
Great Hall

Chair: Frank Fischer, Cindy Hmelo-Silver, Susan Goldman
Discussant: Nikol Rummel

Looking Back and Looking Ahead: Twenty International Years of CSCL
Nancy Law, Peter Reimann, Paul Kirschner, Gerry Stahl

Morning Break 10:00 AM - 10:30 AM
Tripp Commons
Parallel Session 4

**Lecture Session: Instruction 1**
Reception Room

Chair: Katherine Knight

*MTClassroom and MTDashboard: Supporting Analysis of Teacher Attention in an Orchestrated Multi-Tabletop Classroom (full paper)*
Roberto Martinez-Maldonado, Judy Kay, Kalina Yacef, Marie-Theresa Edbauer, Yannis Dimitriadis

*The Impact of CSCL Beyond the Online Environment (full paper)*
Sherice N. Clarke, Gaowei Chen, Catherine Stainton, Sandra Katz, James G. Greeno, Lauren B. Resnick, Gregory Dyke, Iris Howley, David Adamson, Carolyn P. Rosé

*Designing Reference Points in Animated Classroom Stories to Support Teacher Learners’ Online Discussions (full paper)*
Vu Minh Chieu, Patricio Herbst

*Understanding the Teacher’s Role in a Knowledge Community and Inquiry Curriculum (short paper)*
Naxin Zhao, James D. Slotta

**Lecture Session: Game Design & Computing**
Beefeater

Chair: Breanne Litts

*Gameplay as Assessment: Analyzing Event-Stream Player Data and Learning Using GBA (a Game-Based Assessment Model) (full paper)*
V. Elizabeth Owen, R. Benjamin Shapiro, Richard Halverson

*Incentives in Educational Games: A Multilevel Analysis of their Impact on Elementary Students’ Engagement and Learning (full paper)*
Michael Filsecker, Daniel Thomas Hickey

*Measuring Social Identity Development in Epistemic Games (full paper)*
Golnaz Arastoopour, David Williamson Shaffer

*Flexible Gamification in a Social Learning Situation. Insights from a Collaborative Review Exercise (short paper)*
Răzvan Rughiniș


**Tuesday, June 18**

**Lecture Session: Professions & Workplace Skills**
*Old Madison*

Chair: Julia Rutledge

*Fostering CSCL Adoption: An Approach to Professional Development Focused on Orchestration (full paper)*
Luis P. Prieto, Sara Villagrá-Sobrino, Yannis Dimitriadis, Juan I. Asensio-Pérez, Iván M. Jorrín-Abellán

*The Benefits and Limitations of Distributing a Tangible Interface in a Classroom (full paper)*
Sébastien Cuendet, Pierre Dillenbourg

*Individual and Collaborative Reflection at Work: Support for Workplace Learning in Healthcare (short paper)*
Michael Prilla, Krista DeLeeuw, Ulrike Cress, Thomas Herrmann

*Learning to Facilitate (Online) Meetings (short paper)*
Peter Reimann, Susan Bull, Ravi Vatrapu

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**Interactive Session**
*Inn Wisconsin*

Chair: Lee Martin

*Facilitating Belief Change via Computer-Supported Collaborative Knowledge-Building (short paper)*
Pei-Jung Li, Chih-Hsuan Chang, Huang-Yao Hong, Hsien-Ta Lin

*Learning to Argue in Mathematics: Effects of Heuristic Worked Examples and CSCL Scripts on Transactive Argumentation (full paper)*
Freydis Vogel, Elisabeth Reichersdorfer, Ingo Kollar, Stefan Ufer, Kristina Reiss, Frank Fischer

*Designing Soil Quality Mobile Inquiry For Middle School (short paper)*
Heidy Maldonado, Brian Perone, Mehjabeen Datoo, Paul Franz, Roy D. Pea

*Design of a Collaborative Learning Platform for Medical Doctors Specializing in Family Medicine (short paper)*
Sabrina Ziebarth, Anna Kötteritzsch, H. Ulrich Hoppe, Lorena Dini, Svenja Schröder, Jaminko Novak
Panel
Great Hall
Chair: Jan-Willem Strijbos

From Research Instruments to Classroom Assessments: A Call for Tools to Assist Teacher Assessment of Collaborative Learning
Jan-Willem Strijbos, Frank Fischer, Ulrike Cress, Chee-Kit Looi, Sadhana Puntambekar, Peter Reimann, Carolyn P. Rosé, Jim Slotta

Demo Session
Founders
Chair: Dan Suthers

Demo of Collaborative Dynamic Mathematics in Virtual Math Teams
Gerry Stahl, Anthony Mantoan, Stephen Weimar

InterLACE: Interactive Learning And Collaboration Environment
Eric Coopey, Leslie Schneider, Ethan Danahy

iSocial Demo: A 3D Collaborative Virtual Learning Environment
James Laffey, Janine Stichter, Ryan Babluch, Joe Griffin, Krista Galyen

Lunch 12:00 PM - 1:30 PM
Tripp Commons & Tripp Deck

CSCL Committee and Community Open Meeting
Inn Wisconsin
Parallel Session 5                  1:30 PM - 3:00 PM

**Lecture Session: STEM Collaboration**

**Beefeater**

Chair: Elizabeth Pier

*Examining High School Students’ Learning from Collaborative Projects Related to Alternative Energy (short paper)*
Jennifer L. Weible, Heather Toomey Zimmerman

*The Sequential Analysis, Modeling and Visualization of Collaborative Causal Mapping Processes and Effects on Causal Understanding (full paper)*
Allan Jeong, Woon Jee Lee

*Learning How to Learn Together (L2L2): Developing Tools to Support an Essential Complex Competence for the Internet Age (short paper)*
Yang Yang, Rupert Wegerif, Toby Dragon, Manolis Mavrikis, Bruce M. McLaren

*Using Eye-Tracking Technology to Support Visual Coordination in Collaborative Problem-Solving Groups (full paper)*
Bertrand Schneider, Roy Pea

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**Lecture Session: Collaboration Scripts**

**Old Madison**

Chair: Fadoua Ouamani

*Teacher Framing, Classroom Collaboration Scripts, and Help-Seeking and Help-Giving Behaviors (full paper)*
Eleni Kyza, Yiannis Georgiou, Demetra Hadjichambi, Andreas Hadjichambis

*How Collaboration Scripts are Internalized: A Script Theory of Guidance Perspective (short paper)*
Jin Mu, Karsten Stegmann, Frank Fischer

*Effects of an Interculturally Enriched CSCL Script on Students’ Attitudes and Performance (full paper)*
Vitaliy Popov, Harm J.A. Biemans, Martin Mulder

*Is There Evidence for Expertise on Collaboration And If So, Is It Domain-Specific or Domain-General? (short paper)*
Jan Kiesewetter, Martin Fischer, Frank Fischer
**Lecture Session: Collaborative Spaces**

**Reception Room**

Chair: Breanne Litts

*A Study of Private Messaging Within an Asynchronous Discussion Environment (short paper)*

Jim Hewitt, Clare Brett, Kim MacKinnon

*Designing Learning Environments for Knowledge Building: Inquiry Discourse of Chinese Tertiary Classes (short paper)*

Chunlin Lei, Carol K.K. Chan, Jan van Aalst

*The Benefits of Single-Touch Screens in Intersubjective Meaning Making (short paper)*

Jacob Davidsen, Ellen Christiansen

*Collaborative Learning Across Space and Time: Ethnographic Research in Online Affinity Spaces (short paper)*

Alecia Marie Magnifico, Jayne C. Lammers, Jen Scott Curwood

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**Interactive Session**

**Inn Wisconsin**

Chair: Dana Gnesdilow

*Collaborative Learning in Facebook: Can Argument Structure Facilitate Academic Opinion Change? (short paper)*

Dimitra Tsovaltzi, Armin Weinberger, Oliver Scheuer, Toby Dragon, Bruce M. McLaren

*Peer Scaffold in Math Problem Solving (full paper)*

Rotem Abdu

*Bridging Networked Learning Across Multiple Levels: Participatory Approaches to Competency-Based Learning (short paper)*

Rebecca C. Itow, Daniel T. Hickey

*Real-Time Collaboration for Web-Based Labs (full paper)*

Luis de la Torre, Ruben Heradilo, Sebastian Dormido, Carlos Jara
Symposium
Great Hall

Chair: Ulrike Cress

Mass Collaboration – An Emerging Field for CSCL Research
Brigid Barron, Gerhard Fischer, Ulrike Cress, Iassen Halatchliyski, Aileen Oeberst, Andrea Forte, Mitchel Resnick

Afternoon Break 3:00 PM - 3:30 PM
Tripp Commons

Parallel Session 6 3:30 PM - 5:00 PM

Lecture Session: Instruction 2
Beefeater

Chair: Katherine Knight

Multidimensional Teacher Behavior in CSCL (full paper)
Anouschka van Leeuwen, Jeroen Janssen, Gijsbert Erkens, Mieke Brekelmans

When Instruction Supports Collaboration, But Does Not Lead to Learning – the Case of Classroom and Small Group Scripts in the CSCL Classroom (full paper)
Ingo Kollar, Christof Wecker, Sybille Langer, Frank Fischer

Educator Roles that Support Students in Online Environments (short paper)
Caitlin K. Martin, Denise C. Nacu, Nichole Pinkard, Tene Gray

Delaying Instruction Alone Doesn’t Work: Comparing and Contrasting Student Solutions is Necessary for Learning from Problem-Solving Prior to Instruction (full paper)
Katharina Loibl, Nikol Rummel
Lecture Session: Design
Old Madison

Chair: Jenny Saucerman

Cooperative Inquiry as a Community of Practice (short paper)
Stephanie Ryan, Jason Yip, Mike Stieff, Allison Druin

Phases of Design: Following Idea Development and Patterns of Collaborative Discussion in a Learning by Design Project (full paper)
Kate Thompson, David Ashe, Pippa Yeoman, Martin Parisio

Identification of Patterns of Tool Use and Sketching Practices in a Learning by Design Task (full paper)
Kate Thompson, David Ashe, Dewa Wardak, Pippa Yeoman, Martin Parisio

Designing for Group Math Discourse (full paper)
Rachel M. Magee, Christopher M. Mascaro, Gerry Stahl

Lecture Session: Collective Knowledge & Augmented Reality
Reception Room

Chair: Golnaz Arastoopour

Making Use of Collective Knowledge – a Cognitive Approach (full paper)
Ulrike Cress

Finding Evidence of Metacognition through Content Analysis of an ePortfolio Community: Beyond Text, Across New Media (short paper)
Kathryn Wozniak, José Zagal

Ethics for Design-Based Research on Online Social Networks (full paper)
R. Benjamin Shapiro, Pilar N. Ossorio

Constructing and Deconstructing Materially-Anchored Conceptual Blends in an Augmented Reality Collaborative Learning Environment (full paper)
Noel Emneyed, Joshua Danish, David DeLlema
Interactive Session
Inn Wisconsin

Chair: Michael Tscholl

Leveling the Playing Field: Making Multi-Level Evolutionary Processes Accessible through Participatory Simulations (short paper)
Aditi Wagh, Uri Wilensky

Group Work in the Science Classroom: How Gender Composition May Affect Individual Performance (short paper)
Dana Gnesdilow, Amanda Evenstone, Julia Rutledge, Sarah Sullivan, Sadhana Puntambekar

Modeling #Twitter Use: Do Students Notice? (short paper)
Vanessa Dennen, Fabrizio Fornara

The MOOC as Distributed Intelligence: Dimensions of a Framework & Evaluation of MOOCs (short paper)
Shuchi Grover, Paul Franz, Emily Schneider, Roy Pea

Panel
Great Hall

Chair: Susan Yoon

Promises and Perils of Using Digital Tools in Informal Science Learning Environments: Design Considerations for Learning
Susan Yoon, Chris Quintana, Leilah Lyons, Judy Perry, Scot Osterweil, Robb Lindgren

Poster Session & Evening Reception

5:00 PM - 7:00 PM

Tripp Commons

Learning About Ecosystems Through Collaborative Augmented Reality Experiences
Amy M. Kamarainen, Shari Metcalf, Tina Grotzer, Chris Dede

Come_IN@Palestine: Adapting a German Computer Club Concept to a Palestinian Refugee Camp
Kai Schubert, Konstantin Aal, Volker Wulf, Anne Weibert, Meryem Atam, George P. Yerousis
Design Methods to Study Learning Across Networked Systems, Co-Located Spaces, and Time
Caitlin K. Martin, Brigid Barron, Veronique Mertl

INKA-SUITE: An Integrated Test-Environment for Analyzing Chat Communication
Andrea Kienle, Christian Schlösser, Philipp Schlieker-Steens

Transforming the Learning Difficulties to Teaching Moments
Mi Song Kim, Xiaoxuan Ye

iSocial: Collaborative Distance Education for Special Needs
James Laffey, Janine Stichter, Krista Galyen, Xianhui Wang, Nan Ding, Ryan Babiuch, Joe Griffin

The Effect of Computer-Supported Independent and Interdependent Collaboration on Information Sharing
Kyung Kim, Roy Clariana, Amy Garbrick

Learning Across Space, Time, and Scale: A Bayesian Perspective
M. Shane Tutwiler, Tina A. Grotzer

Hybrid Shmybrid: Using Collaborative Structure to Understand the Relationship Between Virtual and Tangible Elements of a Computational Craft
Maneksha DuMont, Deborah Fields

Prospective Mathematics Teachers Interacting in Online Chat Concerning the Definition of Polyhedron
Marcelo Bairral

Structuring the PA Process: Impact on Feedback Quality
Marlo Gielen, Bram De Wever

Designing Community Knowledge in Fabrication Labs: Design Directives and Initial Prototypes
Maryanna Rogers, Paulo Blikstein

Social Design in Digital Simulations: Effects of Single versus Multi-Player Simulations on Efficacy Beliefs and Transfer
Maximilian Knogler, Andreas Gegenfurtner, Carla Quesada-Pallarès

COMPS Computer-Mediated Problem Solving Dialogues
Michael Glass, Jung Hee Kim, Melissa Desjarlais, Kelvin Bryant
**SIMSAM: An Integrated Toolkit to Bridge Student, Scientific, and Mathematical Ideas Using Computational Media**  
Michelle Wilkerson-Jerde, Brian Gravel, Christopher Macrander

**Enhancing Pre-Service History Teachers’ Historical Reasoning through a Computer-Supported Collaboration Script**  
Michiel Voet, Bram De Wever

**Scripting and Orchestration of Collaborative Inquiry: An Increasing Complexity of Designs**  
Mike Tissenbaum, James D. Slotta

**Enhancing Engagement and Collaborative Learning Skills in Multi-Touch Software for UML Diagramming**  
Mohammed Basheri, Liz Burd, Malcolm Munro, Nilufar Baghaei

**Towards Group Cognitive Analysis of Collaborative Learning with Eye-Tracking and Brain Imaging Technologies**  
Murat Perit Çakır

**Formative Assessment Using Repertory Grid Technique via Facebook: A Social Media Tool to Support E-Learning**  
Nobuko Fujita, Chris Teplovs

**Automated and Adaptive Support for Educational Discussions: Results to Guide in Making this a Reality**  
Oliver Scheuer, Bruce M. McLaren, Armin Weinberger

**“Do You Speak Math?” Visualizing Patterns of Student Technical Language in a Mathematics MOOC**  
Paul Franz, Brian Perone

**Exploring the Effect of Online Collaborative Learning on Students’ Scientific Understanding**  
Pei-Jung Li, Chih-Hsuan Chang, Huang-Yao Hong

**Using Mobile Technology to Support Innovation Education**  
Pete Phelan, Daniel Rees Lewis, Matthew Easterday, Elizabeth Gerber

**Interview Findings on Middle Schoolers’ Collaboration in Self-Organizing Game Design Teams**  
Rebecca Reynolds, Cindy E. Hmelo-Silver, Lars Sorensen, Cheryl Van Ness
Digital Evidence and Scaffolds in a Model-Based Inquiry Curriculum for Middle School Science
Ronald W. Rinehart, Ravit Duncan, Clark A. Chinn, Michael Dianovisky

Making Math Learning Social and Familial: The Promise and Problems of Mobile Devices
Osvaldo Jimenez, Shelley Goldman, Ben Hedrick, Kristen Pilmer Blair, Roy Pea

Understanding the Life of an Online Community through Analytics
Rucha Modak, Shawn Vashaw

Visualization and Elaboration of Students’ Group Reading Processes
Sarah A. Sullivan, Sadhana Puntambekar

Improving Academic Essays by Writing and Reading Peer Annotations on Source Documents
Satoshi V. Suzuki, Hiroaki Suzuki

Collaboration in a Non-Digital, Computational Game Space
Sean Duncan

Measuring Performance Across Space & Time in Online Learning: Identifying Structural Patterns to Promote Scalability
Sean Goggins, James Laffey

Supporting Self-Regulated Learning with Moodle Forums
Shiyu Liu

Individual Grade Allocation in CSCL Writing Tasks: A Case Study
Stan Buis, Judith Schoonenboom, Jos Beishuizen

Assessing the Participants in CSCL Chat Conversations
Costin-Gabriel Chiru, Traian Rebedea, Stefan Trausan-Matu

An Approach for Supporting Hybrid Learning Communities: The Case of a Regional Parent Community
Sven Strickroth, Niels Pinkwart

Using Social Media Behaviors to Design Language for Advancing Pedagogy and Assessment
Tamecia R. Jones, Monica E. Cardella, Senay Y. Purzer
Puppetry as a Catalyst in Role-Play: A Device to Facilitate Gaining New Insights into the Perspectives of Others
Toshio Mochizuki, Hiroshi Sasaki, Takehiro Wakimoto, Ryoya Hirayama, Yoshihiko Kubota, Hideyuki Suzuki

Extending Inquiry: Collaborative Learning with Immersive, Interactive Projection
Vanessa Svihla, Nicholas Kvam, Matthew Dahlgren, Jeffrey Bowles, Joe Kniss

Productive Subjective Failure in a Learning Community: Process of Explicating and Negotiating Norms
Yotam Hod, Dani Ben-Zvi

Science Across Virtual Institutes (SAVI): The Innovations in Learning and Education
Eric Hamilton, Jari Multisilta

ISLS Closed Board Meeting 5:00 PM - 6:00 PM
Inn Wisconsin

Banquet 7:00 PM - 10:00 PM
Monona Terrace & Convention Center
Parallel Session 7  
**Lecture Session: Online Discussion 2**  
**Beefeater**

Chair: Jeremy Dietmeier

- **Examining Dynamics of Implementing Flexible Group Discourse in a Principle-Based CSCL Environment (full paper)**  
  Tuya Siqin, Jan van Aalst, Samuel Kai Wah Chu

- **Experiences of a Newbie Helper in a Free Open Online Mathematics Help Forum Community (full paper)**  
  Carla van de Sande

- **Relationships between Listening and Speaking in Online Discussions: An Empirical Investigation (full paper)**  
  Alyssa Friend Wise, Simone Nicole Hausknecht, Yuting Zhao

- **Intensification of Group Knowledge Exchange with Academically Productive Talk Agents (full paper)**  
  David Adamson, Colin Ashe, HyeJu Jang, David Yaron, Carolyn P. Rosé

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**Lecture Session: Knowledge Building**

**Old Madison**

Chair: Julia Rutledge

- **Computer-Supported Metadiscourse to Foster Collective Progress in Knowledge-Building Communities (short paper)**  
  Jianwei Zhang, Mei-Hwa Chen, Jingping Chen, Teresa Ferrer Mico

- **Toward a Qualitative Approach to Examining Idea Improvement in Knowledge-Building Discourse (short paper)**  
  Ella L.F. Fu, Jan van Aalst, Carol K.K. Chan

- **Making Collective Progress Visible for Sustained Knowledge Building (full paper)**  
  Mei-Hwa Chen, Jianwei Zhang, Jiyeon Lee

- **The Effect of Formative Feedback on Vocabulary Use and Distribution of Vocabulary Knowledge in a Grade Two Knowledge Building Class (full paper)**  
  Monica Resendes, Bodong Chen, Alisa Acosta, Marlene Scardamalia
Lecture Session: Psychological and Social Aspects of Technology Use
Reception Room

Chair: Amanda Evenstone

Going Deep: Supporting Collaborative Exploration of Evolution in Natural History Museums (full paper)
Pryce Davis, Michael Horn, Laurel Schrementi, Florian Block, Brenda Phillips, E. Margaret Evans, Judy Diamond, Chia Shen

Inhibiting Undesirable Effects of Mutual Trust in Net-Based Collaborative Groups (full paper)
Tanja Engelmann, Richard Kolodziej, Michail Kozlov

Understanding Collaborative Practices in the Scratch Online Community: Patterns of Participation among Youth Designers (full paper)
Deborah Fields, Michael Giang, Yasmin Kafai

A Multidimensional Dialogic Framework in Support of Collaborative Creativity in Computer Programming (short paper)
Deller James Ferreira, Rupert Wegerif

Interactive Session
Inn Wisconsin

Chair: Benzi Slakmon

A Multi-Level Analysis of Engagement and Achievement: Badges and Wikifolios in an Online Course (short paper)
Andrea M. Rehak, Daniel T. Hickey

Information Cueing in Collaborative Multimedia Learning (short paper)
Alexander Scholvien, Daniel Bodemer

Common Knowledge: Orchestrating Synchronously Blended F2F Discourse in the Elementary Classroom (short paper)
Cresencia Fong, Rebecca Cober, Cheryl Madeira, Richard Messina, Julia Murray, Ben Peebles, James D. Slott
Symposium
Great Hall

Chair: Frank Fischer

Scripting and Orchestration: Recent Theoretical Advances
Frank Fischer, Jim Slotta, Pierre Dillenbourg, Pierre Tchounikine, Ingo Kollar, Christof Wecker, Karsten Stegmann, Clark Chinn

Morning Break 10:00 AM - 10:30 AM
Tripp Commons

Parallel Session 8 10:30 AM - 12:00 PM
Lecture Session: 21st Century Classrooms - Mmedia, Videoconferencing MOOCs & Blended Beefeater

Chair: Sarah Sullivan

Inter-Personal Browsing: Supporting Cooperative Web Searching by Face-To-Face Sharing of Browser Pages (full paper)
Tomoko Hashida, Koki Nomura, Makoto Iida, Takeshi Naemura

An Adapted Group Psychotherapy Framework for Teaching and Learning About CSCL (full paper)
Yotam Hod, Dani Ben-Zvi

The Joint Action Theory in Didactics: A Case Study in Videoconferencing at Primary School (full paper)
Brigitte Gruson, Gérard Sensevy
**Lecture Session: Mobile Tech/Ubiquitous/Multi-Touch Tables**  
Old Madison  
Chair: Garrett Smith  

*Students’ Capacity for Autonomous Learning in an Unstructured Learning Space on a Mobile Learning Trail (short paper)*  
Esther Tan, Hyo-Jeong So  

*Using Gartner’s Hype Cycle as a Basis to Analyze Research on the Educational use of Ubiquitous Computing (full paper)*  
Jari Laru, Sanna Järvelä  

*Fostering Learning and Collaboration in a Scientific Community – Evidence from an Experiment Using RFID Devices to Measure Collaborative Processes (full paper)*  
Julia Eberle, Karsten Stegmann, Kris Lund, Alain Barrat, Michael Sailer, Frank Fischer

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**Lecture Session: Knowledge Building Spaces**  
Reception Room  
Chair: Golnaz Arastoopour  

*Constructive Use of Authoritative Sources among Collaborative Knowledge Builders in a Social Science Classroom (full paper)*  
Fei-Ching Chen, Chih-Hsuan Chang, Cheng-Yu Yang  

*Aggregating Students’ Observations in Support of Community Knowledge and Discourse (full paper)*  
Rebecca Cober, Colin McCann, Tom Moher, Jim Slotta  

*Epistemic Trajectories: Mentoring in a Game Design Practicum (full paper)*  
Padraig Nash, David Williamson Shaffer  

*Exploring Evolutionary Concepts with Immersive Simulations (full paper)*  
Michelle Lui, James D. Slotta
**Interactive Session**

**Inn Wisconsin**

Chair: Dana Gnesdilow

*Visualizing Live Collaboration in the Classroom with AMOeba (short paper)*
Matthew Berland, Carmen Petrick Smith, Don Davis

*Learning through Computer-Assisted Collaborative Game Design: Mathematical, Design, and Computational Thinking (short paper)*
Fengfeng Ke

*Blended Learning Experiences in a Multimodal Setting: The Impact of Communication Channels and Learners’ CMC Expertise on Perceived Social Presence and Motivation (short paper)*
Marc Mannsfeld, Astrid Wichmann, Nicole Krämer, Nikol Rummel

*Visualizing Topics, Time, and Grades in Online Class Discussions (short paper)*
Norma C. Ming, Vivienne L. Ming

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**Symposium**

**Great Hall**

Chair: Elizabeth Bonsignore

*Embedding Participatory Design into Designs for Learning: An Untapped Interdisciplinary Resource?*
Elizabeth Bonsignore, June Ahn, Tamara Clegg, Mona Leigh Guha, Juan Pablo Hourcade, Jason C. Yip, Allison Druin
Demo Session
Founders

Chair: Rich Halverson

Studio K: Tools for Game Design and Computational Thinking
David Hatfield, Gabriella Anton, Amanda Ochsner, Kurt Squire, Ben Shapiro, Alex Games

CyberSTEM: Making Discovery Visible Through Digital Games
Kurt Squire, Rich Halverson, Craig Kasemodell, R. Benjamín Shapiro, Matthew Gaydos, V. Elizabeth Owen, Mike Beall, Dennis Paiz-Ramirez

GoCivics-Tablet-Enhanced Role-Play Games: A Demonstration
Matthew Haselton, Beth Quinn

Lunch 12:00 PM - 1:00 PM
Tripp Commons & Tripp Deck

Invited Plenary Symposium 1:00 PM - 2:30 PM
Great Hall

To See the World and a Grain of Sand:
Multiple Methods in CSCL Research
Chair: Cindy Hmelo-Silver
Discussants: Dan Suthers, Kris Lund

To Analyze a Shared World in a Sedimented Resource and Community in a Solitary Fly, Hold Infinity in the Trace of a Social Force, and Eternity in the Wink of an Eye
Gerry Stahl

Knowledge Processes in Individuals and Groups: A Co-Evolutionary Approach
Ulrike Cress

Gaze across Temporal Levels and its Relation with Dialogue and Understanding.
Patrick Jerman

Cycles of Discourse Analysis Statistical Discourse Analysis
Ming Ming Chiu

Zooming In and Out of Collaborative Process Analysis through Linguistically Informed Machine Learning Models
Carolyn P. Rosé
Closing Session and Open Business Meeting

2:30 PM - 3:30 PM

Wednesday June 19

Great Hall
Map to Education Building (Bascom Hill)
Red highlighted rooms: Full day workshop rooms (Saturday, June 15)
Orange highlighted rooms: Half day workshop rooms (Sunday, June 16)

**See program for workshop room**