CSCL 2019

13th International Conference on Computer Supported Collaborative Learning

Provisional program. All times are subject to change.

Tuesday, 18 June 2019

Tuesday 15:00-15:30

Opening session

Keynote

Steve Fiore, University of Central Florida
Integrating Theorizing on Embodied, Enactive, Extended, and Embedded Cognition to Augment CSCL Research

Tuesday 18:00-20:00

Inaugural reception at the Lyon City Hall

Tuesday, 19 June 2019

Tuesday 8:45-10:15

Long paper sessions

Equity, Broadening Participation

Family collaboration in the digital age: Parent learning partner roles are linked to child expertise and parents’ work
Brigid Barron and Caitlin Martin
Girls as Experts, Helpers, Organizers, and Leaders: Designing for Equitable Access and Participation in CSCL Environments
Kay Ramey and Reed Stevens
Evaluating an Adaptive Equity-Oriented Pedagogy on Student Collaboration Outcomes Through Randomized Controlled Trials

Knowledge Building

The Knowledge Building Network Pilot Project: An Exploration of Emergent Designs to Enhance Collective Teacher Efficacy
Leanne Ma, Monica Resendes, Marlene Scardamalia, and Karen Dobbie
Idea Thread Mapper: Designs for Sustaining Student-Driven Knowledge Building Across Classrooms
Jianwei Zhang and Mei-Hwa Chen
Fostering Collective Knowledge Advancement through Idea-Friend Maps in a Large Knowledge Building Community
Xueqi FENG, Jan Van Aalst, Carol Chan, and Yuqin Yang
Cross-boundary Interaction for Sustaining Idea Development and Knowledge Building with Idea Thread Mapper
Guangji Yuan, Jianwei Zhang, and Mei-Hwa Chen

Wednesday, 19 June 2019

Wednesday 15:00-16:30

Equity, Broadening Participation

Identity, Social Justice, and Inclusive Design
Grace Chiu, Enzo Raimondi, and Yu Ting Lin
Learning Mathematics Together Through Collaborative Sense Making
Mercedes Sandoval, Michael R. Bakker, and Çağrı Ertem
Children and Teachers Contribute to Domino book Creation and book Reading
Shiying model, Zhenqian Zeng, and Zhiqian Shi

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Short paper sessions

Embodied, Embedded, Extended, and Enactive Learning

Collaborative Remembering, temporal cement of Collaborative Learning: an exploration
Lucas Bietti and Michael Baker
SciGirls Code: Computational Participation & Computer Science with Middle School Girls
Cassie Scharber, Lana Peterson, YU-HUI CHANG, Sarah Barksdale, Ramya Sivaraj, Angelina Constantine, and Jennifer Englund
Embodied collaboration to foster instrumental genesis in mathematics
Anna Shvarts, Rosa Alberto, Arthur Bakker, Michiel Doorman, and Paul Drijvers
Examining how scientific modeling emerges through collective embodied play
Xintian Tu, Joshua Danish, Chris Georgen, Megan Humborg, Bria Davis, and Noel Enyedy
Maggie Mars: Theatrical modeling and the phenomenological understanding of solar systems
Jackson Reimers and Corey Brady

Learning Analytics and Data Visualization

Mapping Individual to Group Level Collaboration Indicators Using Speech Data
Cynthia D’Angelo, Jennifer Smith, Nonye Alozie, Andreas Tsiartas, Colleen Richey, and Harry Bratt
Longitudinal Analysis and Visualization of Participation in Online Courses Powered by Cohesion Network Analysis
Maria-Dorinela Sirbu, Mihai Dascalu, Scott Crossley, Danielle Mcnamara, and Stefan Trausan-Matu
See the Collaboration Through the Code: Using Data Mining and CORDTRA Graphs to Analyze Blocks-Based Programming
Mike Tissenbaum and Vishesh Kumar
What can be learned about Computer-Supported Collaborative Learning from a bibliographic coupling analysis
Heisawn Jeong, Sujong Seo, Jiyeon Jeong, Cindy Hmelo-Silver, and Sebastian Grauwin
Digital Badges for Capturing, Recognizing, Endorsing, and Motivating Broad Forms of Collaborative Learning
Daniel T. Hickey, Christopher Andrews, and Grant Chartrand

Symposia

Group Formation in the Digital Age: Relevant Characteristics, their Diagnosis, and Combination for Productive Collaboration
Dimitra Tsovaltzi, Chair
with the participation of Armin Weinberger, Lara Schmitt, Henrik Bellhäuser, Adrienne Müller, Johannes Konert, René Röpke, Hannie Gijlers, Elise Eshuis, Tessa Eysink, Melanie Erkens, Sven Manske, H. Ulrich Hoppe, Daniel Bodemer, Sreecharan Sankaranarayanan, Cameron Dashti, Christopher Bogart, Xu Wang, Majd Sakr, Michael Hilton, and Carolyn Rosé

Technology-Mediated Teacher-Researcher Collaborations: Professional Learning Through Co-Design
Susan Goldman, Chair
with the participation of Andrea Gomoll, Cindy Hmelo-Silver, Allison Hall, Monlin Ko, Angela Fortune, Eleni Kyza, Andria Agesiáou, Kimberly Gomez, Louis Gomez, Emily Pressman, Katherine Rodela, and Iris Tabak

Special interactive session exploring the role of theory in tools and tool-based methods I
FROG, A Tool to Author and Run Orchestration Graphs: Affordances and Tensions
Stian Håklev, Louis Faucon, Jennifer Olsen, and Pierre Dillenbourg
Synergy: An Online Platform for Dialogic Peer Feedback at Scale
Erkan Er, Yannis Dimitriadis, and Dragan Gasevic
Bridging concepts as intermediary knowledge in design: productive dialogues and the Talkwall microblogging tool
Ole Smordal and Ingvill Rasmussen

Wednesday 11:00-12:30
Long paper sessions

CSCL in the Disciplines: STEM and STEAM
The lifespan and impact of students’ ideas shared during classroom science inquiry
Camilla Matuk, Wanjing (Anya) Ma, Garima Sharma, and Marcia Linn
Exploring Disciplinary Boundaries in Early Elementary Students’ Developing Practices
Kylie Peppler, Joshua Danish, and Naomi Thompson
Supporting Collaborative Curriculum Customizations Using the Knowledge Integration Framework
Korah Wiley, Allison Bradford, and Marcia Linn
The Affordable Touchy Feely Classroom: Textbooks Embedded with Manipulable Vectors and Lesson Plans
Augment Imagination, extend teaching-learning Practices
Durgaprasad Karnam, Harshit Agrawal, PRIYANKA BORAR, and Sanjay Chandrasekharan

Regulation, Metacognition, and Group Awareness
Effects of the Need for Cognitive Closure and guidance on contribution quality in wiki-based learning
Sven Heimbuch and Daniel Bodemer
An empirical study of educational robotics as tools for group metacognition and collaborative knowledge construction
Chrysanthos Socratous and Andri Ioannou
Effective Regulation in Collaborative Learning: An Attempt to Determine the Fit of Regulation Challenges and Strategies
Nadine Melzner, Martin Greisel, Markus Dresel, and Ingo Kollar
Unpacking Socio-Metacognitive Sense-Making Patterns to Support Collaborative Discourse
Marcela Borge, Tugce Aldemir, and Yu Xia

Methods of Network Analysis
Collective Knowledge Advancement through Shared Epistemic Agency: Socio-Semantic Network Analyses
Jun Oshima, Ritsuko Oshima, Ayano Ohsaki, and Jin Splichal

The Binary Replicate Test: Determining the sensitivity of CSCL models to coding error
Brendan Eagan, Zachari Swiecki, Cayley Farrell, and D.W. Shaffer
Reading for Breadth, Reading for Depth: Understanding the Relationship between Reading and Complex Thinking using Epistemic Network Analysis
Hanall Sung, Shengyang Cao, Andrew Ruis, and D.W. Shaffer
Assessing Collaborative Problem Solving: What and How?
Haley Tsang, Seung Won Park, Laure Lu Chen, and Nancy Law

Short paper session

Maker Spaces and Design
Students’ funds of knowledge and knowledge creation during STEM learning in a computer-supported makerspace
Anu Kajamaa and Kristin Kumpulainen
Children’s Interactive Strategies around Digital Technology in Collaborative Learning Environments
Dhvani Toprani, Mona Alqahtani, and Marcela Borge
Application of the IBE-UNESCO Global Competences Framework in Assessing STEM-focused, Global Collaborative Learning within a Digital Makerspace Environment
Danielle Espino, Seung Lee, Lauren Van Tress, and Eric Hamilton
Exploring Group’ Design Thinking Patterns in a Principe-based Knowledge-Building Environment
Pei-Yi Lin and Huang-Yao Hong
Using A Virtual Design Studio to Support Collaborative Studio Instruction
Jessica Briskin and Susan Land

Special interactive session exploring the role of theory in tools and tool-based methods II
Supporting Collaborative Problem Solving in a Game-Based Learning Environment
Asmalina Saleh, Yuxin Chen, Cindy Hmelo-Silver, Krista Glazewski, Bradford W. Mott, Robert Taylor, Jonathan Rowe, and James Lester
Lines We Trace: Comparing Data Displays to Support Youth Sailing
Katherine Chapman and Ben Shapiro
Computational Action in App Inventor: Developing Theoretical and Technological Frameworks for Collaboration and Empowerment
Mike Tissenbaum and Joshua Sheldon

Symposia

A Wide Lens on Learning in a Networked Society: What Can We Learn by Synthesizing Multiple Research Perspectives?
Yael Kali, Chair
with the participation of Iris Tabak, Dani Ben-Zvi, Christopher Hoadley, Hava Ben-Horin, Dror Angel, Keren Aridor, Osnat Atias, Ayelet Baram-Tsabari, Maya Benichou, Oren Golan, Yaela N Golumbic, Yotam Hod, Carmel Kent, Adi Kidron, Hana Manor, Nakhi Mishol-Shauli, Carmit Pion, Sheizaf Rafaeli, Amit Rechavi, Malka Shacham, Amit Schejter, Noam Tiross, Patrice L. Weiss, and Oren Zuckerman

Computerized Text Analysis: Assessment and Research Potentials for Promoting Learning
Hee-Sun Lee, Chair
with the participation of Danielle McNamara, Zoë Buck Bracey, Oli Lydia Liu, Libby Gerard, Bruce Sherin, Chris Wilson, Amy Pallant, Marcia Linn, Kevin C. Haudek, and Jonathan Osborne

Wednesday 14:00-15:30

Keynote

Lorenza Mondada, University of Basel
Negotiating Knowledge, Expertise, Connoisseurship and Taste in Social Interaction

Wednesday 15:45-17:15

New member session

Interactive Demos

The Power of Network Analysis Tool for Collaborative Learning
Haesol Bae, Kalani Craig, Joshua Danish, Cindy Hmelo-Silver, Suraj Uttamchandani, Maksymilian Szostalo, and Ann McConney
ToccatA: A Multi-Device System for Activity Scripting and Classroom Orchestration
Valentin Lachand, Aurélien Tabard, and Christine Michel
Mission HydroSci: Meeting Learning Standards through Gameplay
James Laffey, Joe Griffin, Justin Sigoloff, Troy Sadler, Sean Goggins, Andrew Womack, Eric Wulff, and Sean Lander

Posters session

Effects of a Digital Guided Peer Feedback System on Student Learning, and Satisfaction
Omid Noroozi, Arash Bayat, and Javad Hatami
StandUp: Engaging Professionals to Coach Design Projects
Daniel Rees Lewis, Matthew Easterday, and Elizabeth Gerber
Rural Students’ Cultural Assets During Science Argumentation
Jingjing Sun, Brian W. Miller, and Michael Finlay
Assessing Iterative Planning for Real-world Design Teams
Daniel Rees Lewis, Elizabeth Gerber, and Matthew Easterday
Leveraging the Power of Collaborative Reflection to Promote Learning through Clinical Practice
Rupal Jain and Meredith Moore
A Review of the Evolving Definition of Orchestration: Implications for Research and Design
Fan Ouyang
Conceptualizing and analyzing the Instructor-Student Collaboration
Sarah Burriss
Initial knowledge and the intensity of online discussion
Miikka Turkkila, Henri Lommi, and Ismo Koponen
An Innovative Social-Cognitive Engagement Network Representation
Fan Ouyang and YU-HUI CHANG
Reinforce Context Awareness in Augmented Reality-based Learning Design

Yun Wen and Chee-Kit Looi
Citizen Science in Schools: Supporting Implementation of Innovative Learning Environments Using Design-Centric Research-Practice Partnerships
Maya Benichou, Osnat Atias, Ornit Sagy, Yael Kali, and Ayelet Baram-Tsabari
Contribution to the integration of MOOC in a hybrid-learning project in the Moroccan university
Bouchaïb Riyami
Epistemic Frames of Idea Evaluation in Collaboration
Shono Ikeda, Jun Oshima, and Ritsuko Oshima
Misook Kim and Suna Ryu
Moving Beyond the “Façade of Participation”: Using Choice-based Design to Enhance Online Discussions
Valerie Barbaro
Computer-based problem solving to prepare for adaptive consolidation
Antje Boomgaard, Katharina Loibl, and Timo Leuders
The Relationship between Young Students’ Attitudes toward Collaboration and Team Satisfaction In a STEAM-based Program
Tuba Ketenci and Betul ERKAN
Theorizing and operationalizing social engagement as a precursor to productive disciplinary engagement in collaborative groups
Toni Kempler Rogat, Britte Cheng, Andrea Gomoll, Temitope Adeoye, Anne Traynor, Cindy Hmelo-Silver, and Patrik Lundh
Embedding Computational Thinking in the Elementary Classroom: An Extended Collaborative Teacher Learning Experience
Diane Jass Ketelhut, Emily Hestness, and Kelly Mills
Visualizing Representations of Interaction States during CSCL
Saadeddine Shehab and Emma Mercier
Collaboration within Mathland: What do We become Together
Isaac Nichols-Paez and Corey Brady
Using Epistemic Network Analysis to Explore Ways of Contributing to Knowledge Building Discourse
Leanne Ma, Yoshiaki Matsuzawa, and Marlene Scardamalia

Identifying Learning Leaders in Collaborative Learning
Yinying Wang and Min Kyu Kim

Use of spatial sensemaking practices in spatial learning
Abha Vaishampayan, Julia Plummer, Patricia Udomprasert, and Susan Sunbury

Shall we learn together in loud spaces? Towards understanding the effects of sound in collaborative learning environments
Milica Vujovic and Davinia Hernández-Leo

Assessing collaborative problem solving in the context of a game-based learning environment
Asmalina Saleh, Yuxin Chen, Abeera Rehmat, Karyn Housh, Cindy Hmelo-Silver, Krista Glazewski, and James Lester

Structure for Agency: Possibilities and Challenges for Adaptive Collaborative Learning Support in Educational Equity Projects
Suraj Uttamchandani and Cindy Hmelo-Silver

Using Collaborative Agent-based Modeling to Explore Complex Phenomena with Preservice Teachers
Tony Petrosino, Maximilian Sherard, and Corey Brady

Robots to Help Us Feel Safe: A Problem-Based CSCL Experience
Andrea Gomoll

The Development and Application of a Social Reading Platform and the Double-level Scaffolding
Xiangdong Chen and Chen Guo

Integration of Pedagogy, Space, and Technology for Computer-supported Collaborative Learning in Active Learning Classrooms
Meina Zhu, Anne Ottenbreit-Leftwich, and Curtis Bonk

Imagination in Adolescents’ Collaborative Multimodal Science Fictions
Maria Kolovou, Ji Shen, and Blaine Smith

Telepresence robots as embodied agents in the classroom
Penny Thompson and Yam Chaivisit

Child-material computing: Material collaboration in fiber crafts
Anna Keune and Kylie Peppler

Exploring the potential of IVR technology to promote collaborative learning in science experiences
Omar Ceja-Salgado and Sara Price

Exploring VR design for collaborative embodied learning in early years mathematics
Nikoleta Yianoutsou and Sara Price

Assessing Collaborative Online Inquiry and Social Deliberation in Digital Environments
Jesse R. Sparks, Julie Coiro, Jill Castek, Carita Kiili, Beth Holland, and Changhee Lee

Learning with Multiple Representations and Student Engagement in Secondary Education: A Preliminary Review of Literature
Engida Gebre and Addisu Baille

An Exploratory Study of Automated Clustering of Themes to Identify Conceptual Threads in Knowledge Building Discourse
Gaoxia Zhu, Leanne Ma, Andrew Toulis, and Monica Resendes

Intelligent Cognitive Assistants to Support Orchestration in CSCL
Haesol Bae, Krista Glazewski, Cindy Hmelo-Silver, James Lester, Bradford W. Mott, and Jonathan Rowe

Using Actor Network Theory for Complex Data Analysis in Design Based Research
Suna Ryu

Using Sentence Embeddings to Automatically Extract Cohesion and Alignment Metrics in Problem-Solving Tasks
Alejandro Andrade, Chris Georgen, and Michael Stucker

Gaming the Schoolyard: Promoting High School Students’ Collaborative Learning through Geolocative Mobile Game Design
Judy Perry

Wednesday 19:00

Conference Banquet
Models of Collaboration

Expansively Framing Social Annotations for Generative Collaborative Learning in Online Courses
Christopher Andrews, Grant Chartrand, and Daniel T. Hickey

Collaboration on a Massive Scale – Conceptual Implications of the Crowd
Norma Reichelt, Christine Bussian, Christoph Richter, Heidrun Allert, and Lars-Arne Raffel

Tracing Teacher Collaborative Learning and Innovation Adoption: a Case Study in an Inquiry Learning Platform
Maria Jesús Rodríguez-Triana, Luis P. Prieto, Tobias Ley, Ton De Jong, and Denis Gillet

Understanding the Effect of Group Variance on Learning
Sinan Yavuz, Michael Forkner, Dana Gnesdilow, Catherine Dornfeld Tissenbaum, Ji-Seon Kim, and Sadhana Puntambekar

Short paper session

Games and Simulations

College Goes Online with Avatars: Extended Learning in a Middle School
Martine Gadille and Maria Antonietta Impedovo

Moving between Experience, Data and Explanation: The Role of Interactive GIS Maps in Elementary Science
Kathryn Lanouette and Sarah Van Wart

BacToMars: A Collaborative Video Game for BioDesign
Clarissa Verish, Amanda Strawhacker, Lauren Westendorf, Christina Pollalis, Amanda Sullivan, Anna Loparev, Marina Bers, and Orit Shaer

Perspective Taking in Participatory Simulation-based Collaborative Learning
Fengfeng Ke, Xin Yuan, Mariya Pachman, Zhaihuan Dai, Raymond Naglieri, and Xin Hao Xu

Impact of Choice on Students’ Use of an Experimentation Model for Investigating Ideas about Thermodynamics
Jennifer King Chen and Marcia Linn

Symposia

The Roles of Knowledge in Knowledge Creation
Carl Bereiter, Chair
with the participation of Carol Chan, Huang-Yao Hong, Jiyoon Lee, Ahmad Khanlari, Pei-Yi Lin, Ching Sing Chai, Chin-Chung Tsai, Marlene Scardamalia, Seng Chee Tan, Yuyao Tong, Jan Van Aalst, Jianwei Zhang, and Yiping Zhang

The Future of CSCL as inspired by IJCSCL
with the participation of Sten Ludvigsen, Alyssa Wise and Baruch B. Schwarz, Marcela Borge, Yotam Hod, Nikol Rummel and Pierre Tchounikine

Special Session

The Role of Gesture in CSCL

Analysis of Touchscreen Interactive Gestures During Embodied Cognition in Collaborative Tabletop Science Learning Experiences
Nikita Soni, Alice Darrow, Annie Luc, Schuyler Gleaves, Carrie Schuman, Hannah Neff, Peter Chang, Brittan Kirkland, Jeremy Alexandre, Amanda Morales, Katharyn A. Stover, and Lisa Anthony

“I cannot explain why I like this shape better than that shape”: Intercorporeality in collaborative learning
Jacob Davidsen and Thomas Ryberg

Metaphorical Reasoning Together: Embodied Conceptualization in a Community of Philosophical Inquiry
Polo Claire and Sandra Lagrange-Lanspre

Collaborative Gestures Among High School Students Conjointly Proving Geometric Conjectures
Candace Walkingston, Min Wang, and Mitchell Nathan

Thursday 11:00-12:30

Long paper sessions

Tool-Based Research Methodology
Unpacking Collaborative Learning Processes during Hands-on Activities using Mobile Eye-Trackers
Bertrand Schneider

Does Order Matter? Investigating Sequential and Cotemporal Models of Collaboration
Zachari Swiecki, Zhening Lian, Andrew Ruis, and D.W. Shaffer

Finding Common Ground: A Method for Measuring Recent Temporal Context in Analyses of Complex, Collaborative Thinking
Andrew Ruis, Amanda Siebert-Evenstone, Rebecca Pozen, Brendan Eagan, and D.W. Shaffer

An Alternate Statistical Lens to Look at Collaboration Data: Extreme Value Theory
Kshitij Sharma and Jennifer Olsen

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Short paper sessions

Co-constructing Disciplinary Knowledge

Negotiating Uncertainty to Develop a Joint Deepening Focus in Knowledge Building Discourse
Simona Pesaresi and Jianwei Zhang

Advancing Elementary Students’ Reading Comprehension through Knowledge Building
Pei-Yi Lin, Huang-Yao Hong, and Leanne Ma

Collaborative Uncertainty Management while Solving an Engineering Design Problem
Navneet Kaur, Aastha Patel, and Chandan Dasgupta

Understanding Climate Change Through Collaborative Versus Individual Inquiry with Constructive or Example-Based Scaffolds
Sarah Bichler, Sonya Richards, Lisa Hasenbein, Marcia Linn, and Frank Fischer

Emergent Roles, Collaboration, and Conceptual Outcomes for Two Eighth-Grade Groups in CSCL Science Classes
Catherine Dornfeld Tissenbaum, Dana Gnesdilow, Nicole Martin, and Sadhana Puntambekar
Thursday 14:00-15:30

Keynote

Janet Wiles, University of Queensland

Designing Opie robots as learning companions: insights, interactions and interdependencies

Thursday 16:15-17:45

Long paper session

Makers and Designing

From material objects to social objects: Researching the material-dialogic spaces of joint attention in a school-based makerspace

Kristiina Kumpulainen and Anu Kajamaa

On a making-&-linking approach to learning Mathematics in formal education: Knowledge gains, attitudes, and 21st-century skills

Stella Timotheou and Andri Ioannou

Developing Relationships, Changing Participation: Computational Identity

Melissa Gresalfi, Amanda Bell, and Alexandria Cervantes

Bugs as a Nexus for Emergent Peer Collaborations: Contextual and Classroom Supports for Solving Problems in Electronic Textiles

Deborah Fields, Gayithri Jayathirtha, and Yasmin Kafai

Short paper session

Research Methods and Assessment

Understanding the Connections of Collaborative Problem Solving Skills in a Simulation-based Task through Network Analysis

Mengxiao Zhu and Jessica Andrews Todd

A Systematic Review of the Quantification of Qualitative Data in Proceedings of International Conferences on CSCL from 2005 to 2017

Yu Xia and Marcela Borge

Reflective Assessment for Idea Improvement through Collective Concept Mapping

Hyejin Park and Jianwei Zhang

Towards Automatic and Pervasive Physiological Sensing of Collaborative Learning

Kshitij Sharma, Ilia Pappas, Sofia Papavlasopoulou, and Michail Giannakos

Symposia

Tools and Methods for 4E Analysis: 'New lenses for analyzing interaction in CSCL

Rolf Steier, Chair

with the participation of Ben Shapiro, Dimitra Christidou, Palmyre Pierroux, Jacob Davidsen, and Rogers Hall

Designing for Productive Problem Posing in Informal STEM Spaces

Katherine Chapman, Chair

with the participation of Lara Jasien, Paul Reimer, and Lauren Vogelstein

Thursday 18:00-19:30

The French Corner

A showcase for French CSCL research

Interactive Demos

ElectroVR: An Electrostatic Playground for Collaborative, Simulation-Based Exploratory Learning in Immersive Virtual Reality

Scott Greenwald, Wiley Corning, Gavin Mcdowell, Pattie Maes, and John Belcher Belcher

The CUBE: A Tangible for Embodied Learning, Balanced Engagement, and Classroom Orchestration

Pantelis M. Papadopoulos

RoomCast: Distributing Digital Resources in the Classroom of Things

Tom Moher and Alessandro Gnoi

Project Bloks: Embodied and Collaborative Learning with Tangible Interfaces for Young Children

Veronica Lin and Paulo Blikstein

International Alliance to Advance Learning in the Digital Areas best paper session

Symposium

Theorizing and Measuring Collective Productive Disciplinary Engagement

Britte Cheng, Chair

with the participation of Melissa Gresalfi, Amanda Bell, Corey Brady, Lauren Vogelstein, Crina Damsa, Tuire Palonen, Toni Rogat, Anne Traynor, Temitope Adeoye, Andrea Gomoll, Cindy Hmelo-Silver, Dan Hickey, Christopher Andrews, Grant Chartrand, Rebecca Itow, Patrik Lundh, and Sten Ludvigsen

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Special session

International Alliance to Advance Learning in the Digital Areas best paper session
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<td>A Case Study of the Pre-service Teachers' Design Thinking</td>
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<td>Chih Hui Seet, Huang-Yao Hong, and Ching Sing Chai</td>
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<td>Perceptions of Online Professional Development: Do Newer and</td>
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<td>Experienced Teachers Differ?</td>
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<td>Denise Bressler, Susan Yoon, Katherine Miller, Jooeun Shim, Daniel</td>
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<td>Development of Girls' Interests and Identities in Computer</td>
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<td>Sciences within an CSCL Environment</td>
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<td>YU-HUI CHANG, Sarah Barksdale, Lana Peterson, and Cassie Scharbar</td>
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<td>Using Participatory Design to Facilitate In-service Teacher</td>
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<td>Learning of Computational Thinking</td>
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<td>Conflicts and Collaboration: A Study of Upper Elementary</td>
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<td>Students Solving Computer Science Problems</td>
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<td>Jennifer Tsan, Jessica Vandenberg, Xiaoiting Fu, Jamieka Wilkinson,</td>
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Impacts to Students of Infused Computational-Thinking, Problem-Based-Learning Science Curriculum: Engagement, Opportunity to Learn, Interest, and Identity
Amy Semerjian and Collette Roberto

When words are not enough: What student gestures and embodied responses tell us about understanding science through dance
Lindsay Lindberg, Danielle Keifert, Noel Enyedy, and Joshua Danish

Designing Learning Analytics for Teacher Learning: An Analytics-Supported Teacher Professional Development (ASTPD) Approach
Gaowei Chen, Kennedy Chan, Carol Chan, Jinjian Yu, Hu Liru, Jiajun Wu, and Lauren Resnick

Balancing the Scales: Implications of Model Size for Mathematical Engagement
Kylie Peppler, R. Mishael Sedas, Anna Keune, and Suraj Uttamchandani

Quantifying the Effect of Emotional Contagion on Learner Commitment to a Large-scale Collaborative Learning Environment
Hengtao Tang and Wanli Xing

Knowledge Building, Robotics, and Math Education
Ahmad Khanlari and Marlene Scardamalia

Microblogging for joint construction of meaning in the classroom
Jan Arild Dolonen, Ingvill Rasmussen, and Sten Ludvigsen

Tools to mediate collaboration in a STEAM unit of work
Kate Thompson, Susan Chapman, and Harry Kanasa

Negotiation of epistemic territories and collaborative learning in workplace interactions: the case of requests for assistance
Vasiliki Markaki-Lothe and Laurent Filliettaz

Understanding teachers’ collaboration for designing technology-enhanced learning
Chunli Wang and Xiaoqing Gu

Friday, 21 June 2019

Friday 8:45-10:15

**Long paper sessions**

**Scaffolding and Scripting**

Comparing the Effectiveness of Supports for Collaborative Dialogic Sense-Making with Agent-Based Models
Ilana Dubovi and Victor Lee

Flexible CSCL Orchestration Technology: Mechanisms for Elasticity and Dynamism in Pyramid Script Flows
Kalpani Manathunga and Davinia Hernandez-Leo

Please don’t shoot the messenger! Prompts in online learning groups - influences of nudging messages’ sender and publicness on recipients’ perception and attribution
Filipa Stoyanova and Nicole Krämer

Developing Productive Discourse through Collective Inquiry of Knowledge-Building Principles
Yuyao Tong and Carol Chan

**Visualizing Collaboration**

Integrative Visualization: Exploring Data Collected in Collaborative Learning Contexts
Ben Shapiro

Disciplinary Task Models for Designing Classroom Orchestration: The Case of Data Visualization for Historical Inquiry
Josh Radinsky, Iris Tabak, and Monika Moore

Data Wrangling Practices and Process in Modeling Family Migration Narratives with Big Data Visualization Technologies
Shiyan Jiang and Jennifer Kahn

Using and Perceiving Emoji in Design Peer Feedback
Na Sun, Elise Lavoué, Chulakorn Anitajati, Aurélien Tabard, and Mary Beth Rosson

VR/AR and Tangible Tools

Impacts of Augmented Reality on Collaborative Physics Learning, Leadership, and Knowledge Imbalance
Iulian Radu and Bertrand Schneider

Promoting and Tracing High School Students’ Identity Change in an Augmented Virtual Learning Environment
Hamideh Talafian, Mamta Shah, Amanda Barany, and Aroutis Foster

A Spiral Model of Collaborative Knowledge Improvement to Support Collaborative Argumentation for Science Learning: Technological and Pedagogical Design
Wenli Chen, Si Zhang, Yun Wen, Chee-Kit Looi, and Jennifer Yeo

How Augmented Reality Affects Collaborative Learning of Physics: a Qualitative Analysis
Apittha Unahalekhaka, Iulian Radu, and Bertrand Schneider

Short paper session

**Teacher practices, Representations, and Learning**

Young Interpreters: The Situated as Supportive
Kevin Johnstun, Heather Leary, and Bryant Jensen

Video Annotation for Content-Focused Coaching
Julie Amador, Jeffrey Choppin, Cynthia Carson, and Ryan Gillespie

Foundations of Community in an Online, Asynchronous Professional Development Website
Genevieve Henricks, Victoria Jay, Shereen Beilstein, Michelle Perry, Meg Bates, Cheryl Moran, and Joseph Cimpian

Exploring Teaching and Course Assistants’ Interventions with Groups during Collaborative Problem-Solving
Saadeddine Shehab and Emma Mercier

When socio-cognitive challenges in collaborative learning arouse emotional expressions and emotion regulation
Plia Naykki, Hanna Jarvenoja, Tiina Tormanen, Jaana Isohätälä, and Sanna Jarvela
Symposium

**Personal Embodiment and Social Enactment: Collaborative Learning with Body Technology**

Deborah Fields, Chair
with the participation of Cynthia Carter Ching, Victor Lee, Breanne Litts, Chase Mortensen, Joshua Danish, Megan Humbgren, Bria Davis, Xintian Tu, Debora Lui, Mia Shaw, Gaythri Jayathirtha, Yasmin Kafai, Lindsay Lindberg, Robb Lindgren, James Planey, Jason Morphew, Katie Headrick Taylor Taylor, Adam Bell, Erin Riesland, Maria Hays, Deborah Silvis, Ilana Dubovi, Noel Enyedy, and Rogers Hall

**Ghost in the machine: A symposium on collaboration between human and computerized agents in educational contexts**

Matthias Stadler, Chair
with the participation of Frank Fischer, Art Graesser, Pantelis M. Papadopoulos, Anika Radkowitsch, Ralf Schmidaier, Martin Fischer, Haiying Li, Jiangang Hao, and Samuel Greiff

**Friday 11:00-12:30**

**Long paper sessions**

**Gaming and Simulation**

*Designing Representations in Deeply Disciplinary Educational Games*
Ravit Golan Duncan, Frieda Reichsman, Kiley Mcelroy-Brown, and Veronica Cavena

*Location, location, location: The effects of place in place-based simulations*
Amanda Siebert-Evenstone and D.W. Shaffer

*Developing a Model of Collaborative Learning with Minecraft for Social Studies Classrooms using Role-play Theory and Practice*
Anders Mørch, Louise Mifsud, and Siv Eie

*A Scaled Analysis of How Minecraft Gamers Leverage YouTube Comment Boxes to Participate and Collaborate*
Justice Walker, Stefan Slater, and Yasmin Kafai

**Learning Computer Science**

*Measuring the computational in computational participation: Debugging interactive stories in middle school computer science*
Chris Proctor

*Collaborative Talk Across Two Pair-Programming Configurations*
Zarifa Zakaria, Danielle Boulden, Jessica Vandenbarg, Jennifer Tsan, Collin Lynch, Eric Wiebe, and Kristy Elizabeth Boyer

*CoProStory: A Tangible Programming Tool for Children’s Collaboration*
Xiaozhou Deng, Danli Wang, and Qiao Jin

*Analyzing Students’ Synergistic Learning Processes in Physics and CT by Collaborative Discourse Analysis*
Caitlin Snyder, Nicole Hutchins, Gautam Biswas, Mona Emara, Shuchy Grover, and Luke Conlin

**Supporting and Organizing Collaborative Processes**

*Teacher Monitoring Routines: Understanding Pedagogical Judgments During Students’ Collaborative Learning*
Nadav Ehrenfeld and Ilana Horn

*Adaptive Support for Collaboration on Tabletop Computers*
Abigail Evans, Katie Davis, and Jacob Wobbrock

*How teachers implement active learning: Typologies of orchestralional flows*
Elizabeth Charles, Jim Slotta, Robert Cassidy, Michael Dugdale, Chao Zhang, and Kevin Lenton

*Arguing about Synthetic Biology in 140 Characters or Less: Affordances of Microblogging for High School Students*
Mia Shaw, Justice Walker, and Yasmin Kafai

**Short paper session**

**Informal Learning Settings and Social Media**

*Examining the educative value of person-to-person knowledge sharing on social media: The case of YouTube as a site of CSCL?*
Ilana Dubovi and Iris Tabak

**Social Media in the Science Classroom: Bridging Funds of Knowledge to Scientific Concepts**
Kelly Mills, Elizabeth Bonsignore, Tamara Clegg, Jason Yip, June Ahn, Daniel Pauw, and Caroline Pitt

*An Initial Look at the Developing Culture of Online Global Meet-ups in Establishing a Collaborative, STEM Media-Making Community*
Danielle Espino, Seung Lee, Brendan Eagan, and Eric Hamilton

*Embedding microblogging technology to support classroom dialogue*
Anja Amundrud and Ingvill Rasmussen

*Scaffolding Inclusivity Through Making: A Preliminary Analysis of Diverse Learners’ Meaning Making Through Designing Complex Systems*
Gabriela Richard, Sagun Giri, Robert Ashley, and Nakisha Whittington

**Special session**

**What Can 4E Cognition Tell Us About The Successes and Failures Of CSCL Implementation?**

**Symposium**

*Understanding CSCL Through the Lens of Research Syntheses chaired by Freydis Vogel*

Freydis Vogel, Chair
with the participation of Heisawn Jeong, Susan Yoon, Stian Håkle, Leonore Valentine Guillain, Nour Ghallia Abassi, Sally Wai Yan WAN, Sancia Wai-San WAN, Anika Radkowitsch, Frank Fischer, and Cindy Hmelo-Silver
**Friday 13:30-14:30**

**Presidential session**

Chaired by Joseph L. Polman, ISLS President
with the participation of

- Ravit Golan Duncan, Rutgers University
- Sarah McGrew, Stanford History Education
- Andee Rubin, TERC
- Ravi Vatrapu, Copenhagen Business School & Kristiania University College, Oslo, Norway

**Friday 14:30-15:00**

**Closing session**

**Best paper awards**

**Friday 15:00-16:00**

**ISLS Open business meeting**