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CSCL practices

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CSCL 2009 Conference

The CSCL 2009 international conference on the theme “CSCL Practices” will be held in Rhodes, Greece, on June 8-13, 2009. Paper submissions are due November 1 and workshop/tutorial proposals are due December 15. For conference information, see <http://ISLS.org/CSCL2009>.

The conference focuses on issues related to formal and informal learning through collaboration, promoting productive collaborative interactions with the help of the computer and other communication technologies. The conference theme “CSCL Practices” emphasizes practices relating to technology-based collaborative learning in schools, workplaces, and daily life.

The CSCL community is not only concerned with studying and designing effective tools to support CSCL practices, but also with identifying specific educational and professional practices that are associated with their appropriate usages. In order to study practices in a reflective way, powerful theories and analytical approaches are required. The aim is to understand how learning emerges: on an individual level, on a group-cognition level, and at the community level.

The CSCL conference and the CSCL journal work together to advance the collective understanding of the community of researchers and practitioners. The journal organizes a symposium at each conference and publishes expanded versions of important conference presentations. We look forward to seeing you on the historic island of Rhodes.

Three years of *ijCSCL*

This issue completes the third publication year of the CSCL journal. Having aimed to produce a truly international venue for ideas and practices from around the world related to collaborative learning with the use of computer support, we are pleased to have published 58 peer-reviewed articles authored by researchers from 20 different countries. Electronic (<http://www.springerlink.com/content/120055/>) and print copies of the journal are available to all members of ISLS (see <http://ISLS.org>) and to all attendees of CSCL and ICLS conferences, as well as being available through hundreds of universities and research labs worldwide. Prepublication versions of all articles are freely available at <http://ijCSCL.org>.

This year we added several new members to the journal's Board of Editors. The Board now has 56 members, including leading researchers from 21 countries. In addition, over 200 other researchers have signed up at <https://www.editorialmanager.com/ijcscl/> to help review submissions. The quality of the journal depends directly upon the efforts of reviewers to judge the value of submitted manuscripts, to provide helpful feedback to the authors, and to guide the authors to improve the presentation of the papers. Our aim is to make valuable contributions to CSCL research readily available in a clear and useful format.

Now that the journal is well established as an important venue for research findings, we are preparing to apply for indexing and abstracting by ISI. This will make articles in the journal easier to find and will support the arguments of authors for tenure and promotion. You can help the application process by citing articles from *ijCSCL* and by downloading them from the SpringerLink site listed above.

Educational policy and communities of practice

One of the most important ways for CSCL practices to be promoted is for government policies to call for transforming educational systems in line with recent findings of the learning sciences, including promotion of collaborative learning practices supported by networked computational devices. A leader in this growing movement is certainly the Ministry of Education in Singapore, which has made a serious commitment to such educational reform. Their commitment includes the establishment of a world-class research lab that is guiding the school reform effort with systematic research into CSCL practices. *David Hung, Denneth Lim, Victor Chen and Thiam Seng Koh* are centrally involved in this effort. Their lead article in this issue makes a provocative argument on theoretical grounds against incorporating “communities of practice” within educational institutions, and rather encouraging them to exist in a complementary but independent position. While some recent CSCL approaches to learning as a matter of participation in community discourses suggest looking at schools or classrooms as local communities of practice, this paper emphasizes the differences in structure, goals, and social practices between institutions of formal education and the more informal social networks of students or teachers with common interests. It suggests that rather than trying to merge the incompatible organizational structures, one should leverage the work of online communities of learners in ways that can foster adaptive schools, which meet the needs of the new knowledge-based economy.

Computer media and pedagogic goals

Another notable center of CSCL research is the Knowledge-Practices Lab, a large collaboration of universities and industry sponsored by the European Union. They are particularly focused on the CSCL practices that could promote collective knowledge building, as distinguished from more individual-oriented approaches to knowledge acquisition and participation. As we heard in Engeström's (2008) keynote talk at ICLS, one of the on-going theoretical topics at the K-P Lab is what Vygotsky (1930/1978) termed “double stimulation.” In their contribution to this volume, *Andreas Lund and*

Ingvill Rasmussen extend that foundational concept from the micro-genetic level of Vygotsky's analysis of mediated cognition to the socio-genetic level which has become increasingly focal in CSCL theory. As part of his critique of behaviorism, Vygotsky showed how higher human responses to a primary stimulus are mediated by a secondary stimulus, such as a symbol or tool. He also analyzed how mediating stimuli can be internalized in the individual's mind. When looking at collective behavior, like that in a school classroom, it is useful to broaden the conception of dual stimulation to include such phenomena as small-group tasks and institutional practices or technological media. This introduces concern with the complex relations that exist among agents, tasks, and tools in CSCL settings. The tensions, affordances, and constraints involved in the co-design of pedagogical tasks and collaboration media raise the need for social practices of appropriation, negotiation, and adaptation by students, teachers, and administrators at the levels of individual, small-group and community activities.

CSCL guidance and student self-efficacy

An enduring theme concerning CSCL practices is how to promote student interest and success in science and mathematics, particularly for low-achievers. A number of researchers have proposed adopting video game technologies, but the verdict seems to be still out on that—perhaps because the surrounding practices have not been sufficiently taken into account. In their experimental study, *Brian Nelson and Diane Ketelhut* explore how students with different self-reported levels of self-efficacy in science succeed in a science curriculum presented in a video-game-like environment. Students collaborated online in groups of three, and could access guidance messages individually. As expected, access to the guidance hints helped to improve everyone's posttest scores. However, students with low self-efficacy—especially boys—viewed fewer guidance messages. So it is still necessary to change the self-defeating attitudes and behaviors of students with low self-efficacy feelings if their performance in these science environments is to have the beneficial results for which they are designed.

Informal gaming and formal learning

The next paper, by *Fengfeng Ke*, turns to the use of video-game environments for math education. Here, too, the central issue raised involves the design of classroom practices to support this approach to learning. The Astra Eagle games used emphasized drill and practice of fifth grade math skills. Classroom procedures followed the Teams-Games-Tournament approach to collaborative learning, involving collaboration in teams followed by competition on the computer games by individuals in cross-team tournaments. Experimental results support the paper's claim that combining computer games with cooperative learning can improve math education and math attitudes. However, they also suggest that game-based outcomes are different for students who are economically disadvantaged.

Automated coding for research practice

Finally, to support the practices of CSCL researchers themselves, *Gijsbert Erkens and Jeroen Janssen* describe a system to help assign codes to utterances in chat logs. This paper continues the discussion by Rosé et al. (2008) in the previous issue of *ijCSCL*, although the new paper is based on a simpler linguistic theory and is, therefore, more limited in its application. It looks for keyword or key-phrase “markers” in single utterances in order to assign one of about 30 codes from a particular coding scheme that distinguishes argumentative, responsive, informative, elicitive and imperative utterances. The authors have developed a rule-production system of 300 rules for segmentation and 1,250 rules for selecting codes. The system is for chats in the Dutch language, and has been used in several CSCL projects in the Netherlands. The paper argues for the system’s reliability and validity through three studies, while noting that the rules need to be constantly updated to cover new data and that the system’s scope is restricted to research questions that involve the given codes for utterances of individuals; issues of collaboration and group cognition that involve interaction cannot be well addressed, nor can issues of quality and depth of argumentation or reflection that involve the content of utterances.

References

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