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# Social practices of computer-supported collaborative learning

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**Gerry Stahl · Friedrich Hesse**

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## CSCL and the study of social practices

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Ever since Lave and Wenger's paradigm-shaking book on *Situated Learning* (Lave & Wenger, 1991), discussions about how people learn have included considerations of how participation in communities-of-practice and in related social institutions evolves. Learning is no longer conceived as a simple accumulation of facts in the heads of individuals, independent of the identity and behavior of the learners within their socio-cultural settings. Unfortunately, the theory of situated learning is too often construed as a questionable assumption of communities-of-practice everywhere, or as an antiquated romanticizing of apprenticeship. But Lave's perspective is rooted in a serious philosophy of social praxis. To understand phenomena related to learning, one must study the ways in which people interact with one another.

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The consideration of social practices seems particularly relevant to collaborative learning. Individual learning may take countless forms and can be analyzed in terms of the manifold theories of psychology and education; it is highly dependent upon mental conceptions, personal attitudes, modes of content presentation, etc. Learning that takes place in small groups, however, relies additionally upon the establishment of patterns of interaction to guide communication and to support coordination of the group.

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When collaborative learning is computer-supported, the need for the group to adopt effective social practices is both more necessary and more complicated. The subtle social cues of intonation, gesture, facial expression, body language, etc. that have accompanied human social life for millennia may be missing in virtual contexts. As people struggle to interact through awkward computer interfaces, they need to adapt accustomed social practices to the deficits and affordances of the technology, the objective of their activity and the constraints of their interpersonal relationships.

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The four articles in this issue can be read—among other ways—as studies of social practices in CSCL settings, although the papers were not written with this as their central concern. They illustrate that this theme can be investigated with a variety of methods, and begin to suggest the centrality of social practices to both individual and group cognition.

1.  Spaces for monologic/dialogic practices

In the first issue of *ijCSCL*, Wegerif (2006) argued that mastery of dialogic practices formed the basis for the development of individual thinking skills. He called for CSCL software that opened spaces for dialog among students. In this issue, Enyedy and Hoadley consider how software can be designed to support both monological and dialogical learning in concert by opening interaction spaces that help students to move between individual work and group practices. By carefully studying interaction excerpts from CSCL settings, the authors conclude that not only are individual contributions essential to dialog as the interanimation of multiple perspectives, but also that individual cognition should be considered as involving social practices of interaction.

2.  Inquiry practices

For some years, the National Council of Teachers of Mathematics has included among its recommendations and standards pedagogical approaches in which students "analyze and evaluate the mathematical thinking and strategies of others; communicating mathematical thinking coherently and clearly to peers; and make and investigate mathematical conjectures" (NCTM, 2000). Subsequent research on math education indicates that it is particularly difficult for students to explain their problem solving to others and to engage in collaborative reflection. Moss and Beatty explore whether software designed for knowledge building can help to support social practices of mathematical explanation. They adopt Knowledge Forum with young students who are experienced using the software for collaborative inquiry learning in science, and they instruct the students to use it with pre-algebra pattern problems. Using both coding-and-counting and discourse analysis, the authors find that the students do succeed in explaining their work to each other and comparing different solution paths. The software defines social practices for doing this, which are reinforced within an inquiry-learning classroom so that the students can exert "epistemic agency" in carrying out these practices of building knowledge themselves, without direct teacher intervention.

3.  Group dynamics

Clouder and colleagues explore the dynamics of blended learning: how social practices change as groups of students move back and forth between face-to-face and distance interaction. After analyzing various phases within an action research approach, the authors stress continuity across the changes that seems to result in advantageous group dynamics. They stress the pivotal role of the tutor in orchestrating the sequence of phases and the corresponding group dynamics. In keeping with other educational research, they indicate that blended learning has advantages over both face-to-face and distance learning alone. The virtual venue helps some students to find their voice—but only on the basis of healthy group constitution in the face-to-face socializing. This paper suggests that the study of social practices in CSCL should include consideration of contrasts and continuities between the alternating phases of blended learning.

4.  Consistent practices

The topic of intersubjective meaning making was highlighted in the previous issue of *ijCSCL* in relation to technological affordances (Suthers, 2006). In this issue, Dwyer and Suthers investigate the establishment of consistent social practices to support synchronous interaction without visual contact. In this way, they explore how people compensate for one

of the major differences between face-to-face and distant interaction. Interestingly, they do 83
this in a lab setting where the participants can actually talk, see each other's hands and use 84
ordinary household media like pencil and paper—thus isolating the difference that visual 85
contact makes to social practices among dyads. They present pairs of college students with 86
wicked problems to discuss using paper-based artifacts and observe the negotiation of 87
innovative practices for textual communication, guided by an ethnomethodological 88
approach. They thus establish a kind of baseline for computer-mediated interaction by 89
observing the kinds of practices formed using non-digital artifacts under conditions 90
analogous to online environments. 91

## A year of ijCSCL 92

This issue completes volume 1, a milestone for the journal. The vision of a high-quality, 93
peer-reviewed international journal for the publication of innovative ideas and significant 94
findings in computer-supported collaborative learning is now an established reality. The 95
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at http://www.ijCSCL.org. 100

The journal is truly a product of the CSCL research community. The Editorial Board 101
includes 43 leading researchers of CSCL and CSCW. In addition, at least 54 other 102
researchers participated in the reviewing of submitted papers. The reviews have been 103
exceptional. Almost every article printed underwent major revisions in response to three or 104
four incisive reviews. These revisions resulted in substantial improvements to the 105
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As of mid-October, we have received 84 submissions. Of these, we have published 19 109
and rejected 25. Seven are currently being revised in response to reviewer feedback and the 110
remaining 33 are under review for volume 2. If you have empirical findings or theoretical 111
developments that you think are important for the CSCL research community and that you 112
feel are well-developed enough for a journal presentation, please review the Submission 113
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to the concerns of CSCL and using any appropriate scientific methodology or academic 116
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