

computer

support for

collaborative

learning

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Editorial Preface

An important characteristic of the PsychNology Journal is that it offers an opportunity for researchers interested in technology and psychology to share and express ideas, which at the moment are situated along the boundaries of the more traditional disciplines. The opportunity to participate in such an emerging 'virtual' community, is, perhaps, particularly important for beginning researchers who are thriving to become members of established research communities. We believe it is important to continue to offer new and interesting ideas, and through this special issue we attempt to continue this promising line of development. We hope that the studies reported illustrate interesting and fruitful lines of research on the interfaces between the social, psychological and technological.

The target theme for this issue is Computer Support for Collaborative Learning (CSCL). In short, CSCL concerns how computers are employed and designed in order to facilitate learning and collaboration. CSCL is a relatively new, and still emerging, field of research that tie together a broad range of people that share an interest in collaborative learning and computers. This shared locus of inquiry

makes theoretical approaches more sensitive to the social and cultural aspects of thinking and reasoning worth pursuing.

In order to simplify, we can make a broad distinction between *systemic* and *interpretative* approaches to the study of the relationship between computers, collaboration and learning. This distinction cuts across the more traditional distinctions between, for example, socio-cultural and cognitive approaches, in the sense that it directs our attention to issues of methodology. According to a systemic approach, different configurations of elements to do with for example tasks, goals, semiotic and material resources, and discursive and social patterns, influence cognition in different ways. The task for the analyst, then, is to describe and account for the configurations of elements that are most beneficial for learning. A problem with such an approach is that, even though elements are conceived as interdependent, they are still treated as separable entities. This makes it difficult to account for how participants themselves establish meaningful contexts for action. According to an interpretative approach, on the other hand, the focus is on how the meaning

of the different elements is constituted in social interaction. By employing such an approach, we, as analysts, do not have to appeal to entities lying beyond action as explanations of the same action. The phenomena of interest are arguably present in what people say and do. This view can in various ways be founded on certain theoretical approaches, such as social interactionism, ethno-methodology and cultural psychology. The unifying constituent is the focus on human practical action. Accordingly, cognition and technology are treated as phenomena that emerge and are constituted in practice. In CSCL this latter line of research is not particularly prominent. Even though many studies claim to adhere to more social and cultural approaches in theory, how technology and cognition are constituted in practice, are rarely demonstrated analytically.

In our view, despite the massive research efforts during the last decade, how information and communication technology (ICT) support learning is not particularly well understood. We believe that the articles in this issue are contributions in this regard. By employing an interpretative approach to the study of CSCL, it is demonstrated how ICT provides a

context for learning. Paradoxically, this approach might in fact demonstrate more precisely how technologies mediate human activity.

The articles featured in this special issue offer a mixture of theoretical, methodological and empirical contributions. Even though they differ with respect to whether the focus is on the design of 'learning environments' or the analysis of use, they are joined together by an explicit focus on practices. The studies also differ with respect to what kind of technology that is studied. The first study deals with computer simulations, the second with groupware systems, and the third with mobile and wireless technologies. This provides valuable insights into the technological diversity characterising research on CSCL.

The first article concerns how computer simulations are used in the vocational training of nurses. Through an analysis of video-recorded data, Rystedt and Lindwall demonstrate how the use of the anaesthesia simulation gives rise to three different learning foci. In the second article, Arnseth et. al. discuss how students working in a distributed setting establish a shared context for their collaboration and how the use of the system interplays with the

management of intersubjectivity. Lundin takes a slightly different approach in that he focuses on how mobile technology can be used in the design of collaborative learning activities. He also elaborates on how the use of scenarios can serve as a resource when designing learning environments and collaborative learning activities.

Two accounts of work in progress are also reported. Viste and Skartveit describe the design of a prototype of a collaborative interactive learning environment. Through visualisation they aim to design a tool that supports the understanding of complex systems. Liinamaa et. al. present an ICT-based tool for collaborative strategic planning that can be used to facilitate knowledge sharing and learning in organisations. Finally, as guest editors, we would like to emphasise that it has been a great pleasure for us to organise this special issue, and we would like to express our gratitude to the editors-in-chief for this opportunity. We also want to thank the contributors, the reviewers and the people that have showed an interest in this special issue. We believe that the PsychNology Journal truly offers interesting prospects for sharing and exchanging ideas in a way that stand

up to the requirements of the research community.

Sincerely,
Frode Guribye and
Hans Christian Arnseth