CSCL@Work:
Making Learning Visible in Unexpected Online Places Across Established Boundaries

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ABSTRACT

The authors introduce Computer-Supported Collaborative Learning (CSCL) at the workplace (CSCL@Work) as a conceptual framework for bridging the knowledge of researchers in the field of CSCL to work-based learning. In contemporary firms, shepherding the creation of new knowledge is of equal importance, and is driven by two primary research questions. First, how do organizations create new knowledge when the answer to a particular problem is not available within the firm? Second, what cultures of learning must and do exist to support solving problems when the answer is not known within an organization? Contemporary answers to these questions must recognize that learning is an implicit, often invisible component of work, and explicitly decouple the construct of learning from its main western institutionalization, the school. To advance thinking in this area, the authors undertook a meta analysis of 8 CSCL@Work cases and developed 3 design theses: 1) Learning occurs in unexpected and unusual online learning places, especially through Social Media. 2) Learning activities incorporate feedback from diverse people, who are not available within traditional organizational boundaries; 3) learning must be made visible across established boundaries. Designing explicit construction of new knowledge needs to be integrated into workplace practices today through pedagogical and technological design.

Keywords: Collaboration, Computer Support, Learning, Making Learning Visible, Work-Based Learning

INTRODUCTION

Computer-Supported Collaborative Learning at Work – CSCL@Work – bridges the knowledge of CSCL researchers, who are focused on learning, to the domain of workplace learning. CSCL@Work research, as proposed in this article, aims to understand how organizations create the knowledge they require when that knowledge is not already known within the organization. With this article we propose a framework for research focused on knowledge sharing by looking closely at the process of knowledge sharing, and defining CSCL@Work as a mechanism for making learning practices visible, and centering research on the collaborative creation of new knowledge. In other words, CSCL@Work frames a new area of inquiry,
focused on making collaborative learning in the workplace explicit through social media and other collaborative technologies integrated into workplaces.

Creating a culture of learning within the organization was the focus of Organizational Learning, beginning with Argyris and Schoen (1978) and continuing through its development by Brown and Duguid (1991, 2000) and others. Historically, knowledge management solutions focus on the capture, cataloguing and retrieval of information and work processes to promote the identification of known information within an organization.

But what do firms do when the answer is not known, the problem is not yet framed, or there are no existing solutions? For example, traditional book and newspaper publishers lose customers and authors in the Social Media age. Some publishers have adapted by adopting social media and blogging strategies, but these solutions did not emerge from knowledge management systems, which are insufficient for acquiring new knowledge (Sylvie et al., 2010; Goggins, 2009).

When an industry goes through these types of fundamental changes, entire workforces need to learn new methods and approaches for performing their work. To accelerate this process, CSCL@Work asks, how can collaborative learning be supported explicitly in the workplace? “Learning from the past is not enough to help stakeholders accomplish their tasks and practices” (dePaula & Fischer, 2005, p. 30). In this new world, “knowledge is not a commodity to be consumed but is collaboratively designed and constructed in the doing of work” (p. 30). What sounds simple is often implicitly done instead of designing solutions for collaborative knowledge construction as an explicit way of learning. Some firms even avoid the term “learning”. A few large technology firms built and use interactive learning environments but a greater number of firms do not focus on fostering collaborative learning in the workplace (Gorman & Fischer, 2009). We argue that learning is not made into a visible, integrated part of work practices.

Technology solutions are one component of supporting workplace learning. While there are new technologies making collaboration through Social Media outside of work more common (e.g., social networking systems, Blogs), there is little evidence that organizations do not yet focus clearly on using technologies like these to foster learning in general or collaborative learning, specifically. New kinds of knowledge management systems – reframed as CSCL@Work systems – might contribute to this.

The basic questions for industrial and information-society firms include, a) are they able to create new knowledge when the answer to a problem is not available, and, b) what concepts of collaborative learning exist and are they supported? Reframing work as an active learning activity is a significant challenge for firms that need to adapt quickly in a dynamic world (Easterby-Smith et al., 2009). We argue that new concepts of learning, supported by new technologies at the workplace and a new understanding of work are required to foster a work-based learning culture. Fostering such a culture is essential for creative thinking, creative actions and innovations (Easterby-Smith & Prieto, 2008). To make progress toward these important goals, we propose a CSCL@Work research agenda at the boundary between research on knowledge management, CSCW and CSCL.

From a meta analysis of 8 cases, we frame inquiry into CSCL@Work. Additionally, the lens of our combined 36 years of experience designing and implementing collaborative solutions for work and learning in industry inspired our questions. The analysis of the cases suggests that a future work-based learning approach — where employees need new knowledge on problems where the answers are not known — requires new conditions for learning.

The paper is organized as follows. We introduce the conceptual framework of CSCL@Work starting with framing emerging problems followed by a case study and finally, implications for conceptualizing CSCL@Work will be illustrated.
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