Chapter XX

A Critical Inquiry into Web-Mediated Collaborative Learning

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This chapter presents a critical approach to collaborative learning viewed as a social interaction process. Based on Habermas' theory of communicative action, the chapter proposes a communicative model of collaborative learning with the aim to enhance understanding of communicative practices in Web-mediated collaborative learning situations and to provide a methodological instrument for the analysis of concrete learning processes. Drawing on the empirical data from a field study the chapter illustrates how the communicative model of collaborative learning can be applied to analyse not only what linguistic interactions among students mean but also what they produce in a particular learning situation. The chapter concludes by summarising possible implications of this critical perspective and the communicative model of collaborative learning on both practical pedagogy and empirical research in Web-mediated environments.

INTRODUCTION

Collaborative learning involves groups working together, sharing and clarifying ideas, actively contributing to teamwork, and cooperatively solving problems defined by a learning task (Johnson and Johnson, 1975, 1991; Slavin, 1987; Alavi, 1994; Marjanovic et al., 1995; Cecez-Kecmanovic, 1996; Huynh, 1999). A key feature that distinguishes collaborative learning from individual and competitive learning is its foundation on social interactions. The view of collaborative learning as a social interaction process has its roots in the works of Piaget (1926) and Vygotsky (1978) who contend that the social processes of learning occur more effectively through interpersonal interactions in a cooperative rather than competitive context. As Whipple (1987) explains, collaborative learning activities "lead to emergent knowledge, which is the result (not summation) of interaction of the understandings of those who contribute to its formation" (p.5).

Technological innovations, proliferation and conceptual developments in Web-mediated learning and teaching are creating ever new opportunities for enacting,

conceptualising, designing and facilitating collaborative learning. By enabling social interactions via an electronic medium, unrestrained by space, time and pace, Web technologies actually expand and transform the social interaction space of collaborative learning. Students can work together, achieve shared understanding, and cooperatively solve problems in the new Web-mediated environment. While numerous studies have addressed the comparative advantages and disadvantages of computer supported or technologically mediated learning versus traditional, face-to-face learning environments (see e.g.. Alavi, 1994) there has been little interest in understanding the inside of the learning processes in these environments.[1] This lack of understanding, in our view, prevents comprehensive exploration not only of the challenges of Web-mediated collaborative learning but of new, potentially exciting opportunities as well. Our major motive for writing this chapter is to enhance understanding of the complex structure of social interactions, the ways meanings are co-constructed, shared understandings are achieved and student self realisation is accomplished in Web-mediated collaborative learning environments.

Habermas' theory of communicative action that places understanding in language, as a medium of coordinating social interactions, at a focal point of interest, offers a promising point of departure (1984, 1987). According to communicative action theory social interactions are mediated through linguistic acts with the aim of reaching understanding and achieving aims. While Habermas' theory has been widely discussed, criticised and applied in other fields, (Dietz and Widdershoven, 1991; Forester, 1992; Lyytinen, 1992; Lyytinen & Klein, 1985; Bernstein, 1994; Cecez-Kecmanovic and Marjanovic, 1995) it has not until recently been considered in explorations of collaborative learning (Huynh, 1999; Klein and Huynh, 1999).

We argue in this chapter that Critical Social Theory and especially Habermas' theory of communicative action has considerable and yet unrealised potential for critical inquiry into collaborative learning in general and Web-mediated collaborative learning in particular. By focusing on social interactions that take place during the process of collaborative learning, we will demonstrate how Habermas' theory of communicative action can be applied to gain a deep insight into the complex and largely uninvestigated communicative practices of collaborative learning – such as presenting and contesting facts, norms and rules of conduct, personal experiences and feelings; shaping beliefs, relationships, sense of membership and self-representation. This new critical perspective focusing on speech and interactions helps us to 'look and see' what is happening in actual flows of conversations in collaborative learning. As a result, we may become more attentive listeners, sensitive to the ways meanings are constructed, mutual understanding is achieved and self realisation is accomplished. Similarly, we may become more sensitive to the practices and mechanisms distorting these communicative achievements. This critical perspective can have significant implications for both practical pedagogy and empirical research on collaborative learning.

The objectives of this chapter are a) to suggest a particular critical perspective of Web-mediated collaborative learning by applying Habermas theory of communicative action; b) to propose a *communicative model of collaborative learning,* founded on this theoretical framework, that can serve as both a pedagogical tool for improving the practice of collaborative learning and a methodological instrument for the inquiry into collaborative learning, especially Web-mediated; and c) to demonstrate the application of the proposed *communicative model of collaborative learning* to a concrete example of Web-mediated collaborative learning, drawing on a field research study. Our intention, given the theoretical and methodological focus of this paper, is not to substantively elaborate on the field study

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