Grounding CSCW in Social Psychology

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INTRODUCTION

Computer-Supported Cooperative Work (CSCW) is largely an applied discipline, technologically supporting multiple individuals, their group processes, their dynamics, and so on. CSCW is a research endeavor that studies the use of, designs, and evaluates computer technologies to support groups, organizations, communities, and societies. It is interdisciplinary, marshalling research from different disciplines such as anthropology, sociology, organizational psychology, cognitive psychology, social psychology, and information and computer sciences. Some examples of CSCW systems are group decision support systems (e.g., Nunamaker, Dennis, Valacich, Vogel, & George, 1991), group authoring systems (e.g., Guzdial, Rick, & Kerimbaev, 2000), and computer-mediated communication systems (e.g., Sproull & Kiesler, 1991).

Behavioral and social sciences provide a rich body of research and theory about principles of human behavior. However, researchers and developers have rarely taken advantage of this trove of empirical phenomena and theory (Kraut, 2003). Recently, at the 2004 Conference on CSCW, there was a panel discussion chaired by Sara Kiesler (Barley, Kiesler, Kraut, Dutton, Resnick, & Yates, 2004) on the topic of incorporating group and organization theory in CSCW. Broadly speaking, the panel discussed some theories applicable to CSCW and debated their usefulness.

In this article, we use the theory of small groups as complex systems from social psychology in a brief example to allude to how it can be used to inform CSCW methodologically and conceptually.

BACKGROUND

Preaching to the choir, Dan Shapiro at the 1994 Conference on CSCW made a strong call for a broader integration of the social sciences to better understand group- and organizational-level computer systems (Shapiro, 1994). Shapiro contrasted his proposal with the dominant use of ethnomethodology in CSCW research. As he noted, ethnomethodology implies a commitment to a worldview in which theories and other abstractions are rejected. Therefore, ethnographic accounts of behavior are driven not by explanation but “by the stringent discipline of observation and description” (p. 418). The result has been perhaps excellent designs, but typically, there is little sustained work to develop first principles that can be applied elsewhere (Barley et al., 2004).

Finholt and Teasley (1998) provided evidence of Shapiro’s concern by analyzing citations in the ACM Proceedings of the Conference on CSCW. For example, examination of the 162 papers that appeared between 1990 and 1996 showed that each conference had a small number of papers with a psychological orientation. Overall, however, the proceedings indicated only modest attention to psychological questions, and this attention is diminishing. For instance, 77 out of 695 citations referenced the psychological literature in the 1990 Proceedings. By 1996, despite a 34% increase in the total number of citations, the number of references to the psychological literature decreased by 39% to 46 out of 933 citations. Thus, based on this study, the authors argue that the CSCW community should adopt a stronger orientation to social science disciplines.