Chapter 1.18
Communication in Global Virtual Activity Systems

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ABSTRACT
This chapter uses activity theory as a lens to understand the implications of both virtual collaboration and cross-cultural contact for communication in global virtual teams. Rather than adopting a set of heuristics or guidelines that may readily become dated as cultures and technologies shift in the flat world, we argue that both those who study and those who engage in global virtual teams should critically analyze the entire activity system. We then provide meta-cognitive approaches to both distributed work and cross-cultural contact that team managers and team members can use to establish flexible communication practices appropriate to the activity system at hand, and that researchers can use to account for the range of factors that impact team performance.

INTRODUCTION
To say that communication is central in team environments is simply to state the obvious. Project failures, from the near meltdown of Three Mile Island Nuclear Plant in 1979 (Herndl, Fennell, & Miller, 1991) to the explosion of the Space Shuttle Challenger in 1986 (Winsor, 1988; Herndl et al., 1991), and more recently Columbia in 2003, all include significant instances of communication breakdowns among team members. Within virtual teams, the lack of both formal and informal face-to-face (f2f) communication widens the potential for such breakdowns. Add an international com-
ponent, where team members must communicate not only across cyberspace but across cultural space and the problems multiply exponentially.

Yet despite potentially disastrous communication gaps, global virtual teams are an increasingly common feature of the contemporary workplace (Friedman, 2005). As global virtual teams proliferate, however, the need to establish effective communication practices increases. And importantly, the answer is not solely a matter of better technology, attention to time zones, and clear translation guidelines. While developers create increasingly sophisticated software and hardware to facilitate communication, team managers and team members need to grow proficient not only in using this technology adeptly, but in effectively orchestrating the flow of information around the globe.

To identify strategies that foster successful communication in international online environments, we draw on activity theory first to understand the complexity of the problem and second to suggest key areas of meta-cognition for those participating in global virtual teams (GVTs), reporting on classroom case studies to support the theoretical framework. While much has been written about communication in virtual environments and about cross-cultural communication, the success of GVTs requires explicit attention not only to each dimension individually but also to the ever-changing interactions between them. Using activity theory as a framework for understanding these interactions, we describe an analytical approach to establishing and maintaining GVTs built not on a set of soon-outdated heuristics, but on a flexible, context-driven understanding of the system itself. This approach suggests key issues for educators who seek to develop students’ abilities to function on GVTs, for managers who oversee such teams, and for researchers who seek to understand more about how such teams operate in the contemporary workplace.

**BACKGROUND: ACTIVITY THEORY AS A LENS TO UNDERSTAND VIRTUALGLOBAL COMMUNICATION**

Activity theory has a long intellectual history in psychology as a framework to analyze human behavior not in terms of isolated individuals but in terms of the larger activity system in which individuals operate, including specific settings as well as social, historical, and cultural networks (Cole, Engeström, & Vasquez, 1997; Russell, 1997a; Kain & Wardle, 2005). An activity system is “any ongoing, object-directed, historically conditioned, dialectically structured, tool-mediated human interaction” (Russell, 1997a). Through this lens, human activity is always contextualized, and the system, rather than any single individual or act, is the primary unit of analysis for researchers and practitioners alike (Cole et al., 1997; Russell, 1997a). Within this framework, texts—reports, presentations, e-mails, sketches, meeting agendas, phone calls—are among the “artifacts” or tools that mediate interactions between subjects (members of the team) and objects (the problem or project) to achieve a desired outcome, all resting on a complex contextual foundation. The entire activity system can be represented as a network of triangles, as shown in Figure 1.

![Figure 1. Workplace Activity System (after Kain & Wardle, 2005)](image-url)