Chapter 1

Synthesizing the Research Advances in Electronic Collaboration:
Theoretical Frameworks

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ABSTRACT

This article has the objectives to discuss the background for the two special issues of International Journal of e-Collaboration on electronic collaboration in organizations, examine four theoretical frameworks with particular regard to their relevance to the content in the articles in the special issues, and summarize each of the nine articles in these issues. The articles in the special issues are diverse in conceptual theory, units of analysis, research methods, and levels of collaboration. Units of analysis span from the individual, virtual team, company to the dyadic relationship between firms. Electronic collaboration is studied in locales including Austria, Korea, the Netherlands, Switzerland, and the United States. The diversity extends knowledge within varied realms of the electronic collaboration field. This introductory article offers an overall framework for these two special issues to help readers and potential authors see how the studies relate to one another and to the overall body of knowledge.

INTRODUCTION

Studies of electronic collaboration have become more advanced and complicated such that robust models have been developed based on a growing literature and tested with data from global organizations in a single country or with a global reach (Koch & Nosek, 2005). They can involve a variety of organizational functional aspects from selling to software development to supply chain management, as well as levels of workers from lower level to managers to chief executives. Their unit of analysis can be an individual, collaboration team, project, dyadic relationship, firm, or group of firms. The reach of electronic collaboration is global and is investigated in advanced economic and technological environments such as the United States and Western Europe as well as in emerging economies located in Asia and Eastern Europe (Romano, Pick, & Roztocki, 2007).

Frequently, electronic collaboration is described as cooperation of individuals on a joint task using electronic technologies (Kock, 2005). In the context of these two special issues, we define electronic collaboration as the integration of people, systems, processes and infrastructure across organizations, borders, nations and world regions to enable productive teamwork toward accomplishing mutual goals (Romano et al., 2007). Despite two decades of intensive investigation on different aspects of electronic collaboration, many collaboration models are based solely on the cultural environment of North America or Western Europe (Fjermestad & Hiltz 1998, 2000; Lewis, Bajwa, Pervan et al., 2007). Corporate reality in the 21st century demands that firms cooperate across national, economic and social boundaries and there is a need for enhanced collaboration models to be constructed, validated, and further refined in terms of the global economy.

Electronic collaboration has expanded to the global economy and now differs substantially from collaboration in any single country or region for several reasons (David, 2008; Friedman, 2005;

MacCormack & Forbath, 2008). First, information systems/information technology (IS/IT) infrastructures vary significantly across countries and regions in terms of stage of development and maturity. Second, cultural, social, legal, and regulatory environments also vary substantially. Third, various stakeholders in global IS/IT projects often have different or even conflicting goals and ascribe to their own definitions of project success. In addition, managing globally distributed teams requires a very high level of coordination and collaboration that exceeds that needed for more typical virtual teams within one economy or region (Nicholson, Sarker, Sarker, & Valacich, 2007; Shachaf & Hara, 2007). Although the management of globally distributed teams is more challenging, these virtual teams can often work faster than those in a single time zone by using the time differences of their physical locations to work around the clock (Roztocki & Fjermestad, 2005).

Relatively few studies (e.g., Fahy et al., 2007; Janssens & Brett, 2006) have constructed, validated, and tested models that investigate the linkages of intra-organizational, inter-organizational, cross cultural, and/or cross organizational electronic collaboration, whether in a single country or globally (Shin & Edington, 2007). To address these issues and others in terms of the virtual team environment, collaborative arrangements, and the economy two special issues of the *International Journal of e-Collaboration* will offer nine timely and varied research articles. The first special issue emphasizes intra-organizational electronic collaboration, while the second focuses on cross-cultural and cross-organizational electronic collaboration.

The guest editors organized the special issues over the past year. Manuscripts received from an open call were sent to reviewers. Only nine were eventually accepted with revisions, based on double-blind reviews. Some of the manuscripts submitted were expanded research from the mini-tracks on "Cross-Organizational and Cross-Border IS/IT Collaboration" presented at the 39th (2007) and 40th (2008) Hawaii International Conference

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