Chapter 1

A Discussion of Key Conceptual Elements of E-Collaboration

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Abstract

This chapter defines e-collaboration, and provides a historical glimpse at how and when e-collaboration emerged. The discussion suggests that the emergence of e-collaboration had more to do with military considerations than with the solution of either organizational or broad societal problems. It is also argued that e-collaboration, as an area of research and industrial development, is broader than what is often referred to as computer-mediated communication. The chapter concludes with a discussion of six key conceptual elements of e-collaboration: (1) the collaborative task, (2) the e-collaboration technology, (3) the individuals involved in the collaborative task, (4) the mental schemas possessed by the individuals, (5) the physical environment surrounding the individuals, and (6) the social environment surrounding the individuals.
Electronic collaboration (e-collaboration) is operationally defined here as collaboration using electronic technologies among different individuals to accomplish a common task (Kock & D’Arcy, 2002; Kock, Davison, Ocker, & Wazlawick, 2001). This is a broad definition that encompasses not only computer-mediated collaborative work, but also collaborative work that is supported by other types of technologies that do not fit most people’s definition of a computer. One example of such technologies is the telephone, which is not, strictly speaking, a computer—even though some of today’s telephone devices probably have more processing power than some of the first computers back in the 1940s. Another example of technology that may enable e-collaboration is the teleconferencing suite, whose main components are cameras, televisions, and telecommunications devices.

The above operational definition, which I will use as a basis to discuss other related issues in this chapter, is arguably very broad. Yet, it is probably clearer than the general view of e-collaboration in industry, which some may also see as a bit unfocused. For example, some developers of e-collaboration tools, such as Microsoft Corporation and Groove Networks, emphasize their technologies’ support for the conduct of electronic meetings over the Internet. There seems to be a concern by those developers with offering features that make electronic meetings as similar to face-to-face meetings as possible.

Industry information technology publications such as CIO Magazine and Computerworld, on the other hand, often tend to favor a view of e-collaboration technologies as tools to support business-to-business electronic commerce and virtual supply chain management over the Web. These are business activities that are arguably substantially different from electronic meetings, both in terms of scope and main goals. The primary audiences of industry information technology publications are information technology managers and professionals, who are the consumers of e-collaboration technologies. Given that, one can imagine the possible misunderstandings that may take place when those managers and professionals get together with developers’ sales representatives to discuss possible e-collaboration technology purchases.

The First E-Collaboration Technology

As far as buzzwords are concerned, e-collaboration is still in its infancy, even though the technologies necessary to make e-collaboration happen have been around for quite some time. Strictly speaking, e-collaboration could have happened as early as the mid-1800s, with the invention of the telegraph by Samuel F. B. Morse. The telegraph allowed individuals to accomplish collaborative tasks interacting primar-
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