



# Creativity, Innovation, and E-Collaboration

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## ABSTRACT

*IT-endowed collaboration within and between groups will catalyze creativity, which in turn will facilitate multidisciplinary innovation and reduce barriers and inefficiencies among people working together. This article describes the challenges of supporting creativity and innovation through e-collaboration, and summarizes the papers that were accepted for a special issue of the International Journal of e-Collaboration. Three papers were selected from among 31 manuscripts that had been received; these manuscripts were reviewed with the assistance of 46 independent reviewers. The authors of the selected papers cover three important aspects of IT-endowed collaboration: the impact of collaboration tools on process, product, and relational innovation; the impact of e-information, e-communication, and e-workflow on innovation; and design requirements for collaboration tools aimed at creativity assistance. The article ends with a call for further research on the design and evaluation of collaboration environments tailored for use by virtual teams.*

*Keywords: creativity; electronic collaboration; organizational innovation; virtual teams*

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## CREATIVITY AND INNOVATION

Incremental change and adaptation are no longer sufficient for achieving growth in today's world, nor are they good enough to ensure a company's survival. Product, process, and relational innovation are necessary for

companies wishing to compete in the global economy. Organizational innovation depends on the ability of a company to produce creative ideas that lead to breakthroughs in what they sell or how they sell. Successful innovation is hard, and companies invest heavily in

training, technology, and other means to support working arrangements that encourage and reward creative and innovative employees (Ford & Gioia, 1995). Researchers and practitioners still struggle to better understand how to enable, manage, and measure creativity and innovation, even though both creativity and innovation have been the subjects of organizational study for decades (Amabile, 1982; Burns & Stalker, 1961; Isaksen, Murdock, Firestien, & Treffinger, 1993).

Reacting to the need for better technology-based resources to support organizational innovation, information systems researchers have also explored how to design software for influencing creativity. The importance of creativity support systems is evident in the fact that the lead article in the first issue of *Information Systems Research* proposed and tested design guidelines for systems to support user creativity (Elam & Mead, 1990). More recent studies on how collaborative environments support creativity and innovation combine elements of organization theory with elements of information systems design (Laudel, 2001).

Both creativity and innovation are difficult concepts to define. Innovation can result from creativity, but the two are not interchangeable. Many organizational researchers agree that creative ideas must be novel, and they must produce value (Ford, 1995). An innovation results from creativity plus successful implementation of the creative idea (von Stamm, 2003). Creativity can be seen

as the first step in an innovation process (West, Sacramento, & Fay, 2006). Innovation may pertain to new products, services, relationships with partners, or production and administrative processes, or it may enable a company to reach the marketplace more quickly than its competition (Damanpour, 1995; Moore, 1998). In simple terms, creativity is a necessary but not sufficient condition for innovation.

Organizations innovate; individuals create. In modern organizations, individuals rarely produce creative ideas in seclusion. Instead, individuals contribute to work groups or teams. The continual challenge of the modern organization is to provide a supportive working environment and reward structure to work groups so that they are more likely to produce ideas leading to competitive innovations. Individual success is then measured by the success of the projects on which that individual has worked, and employees soon learn the value of their own intellectual capital as a key component of career success (Ford & Gioia, 1995). It is up to the organization to determine the best team makeup and supporting infrastructure that will lead to both creative ideas and successful innovations.

In many cases, the most creative or innovative ideas are generated when a mix of internal and external team members combine their complementary skills and perspectives in new ways (Dougherty, 1992; West et al., 2006). These virtual teams, formed from a mix of in-house and contractual employees

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