

Instant Messaging as an E-Collaboration Tool

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INTRODUCTION

Technology-enabled e-collaboration has been a common practice in modern organizations. Advances in interenterprise software and communication technologies, along with globalization, networking, and digitization have led organizations to look for collaboration tools that will be effective for people to exchange information in business environment. Corporate instant messaging (IM) use has been exploding in recent years. According to Gartner forecasts, worldwide spending on enterprise IM will almost triple from \$231 million in 2004 to nearly \$640 million in 2009. By the end of the decade, Gartner anticipates 90% of corporate e-mail users will also have IT-controlled IM accounts. IM can provide the kind of presence elements for real-time interaction that can be integrated with other corporate collaboration tools.

This article introduces the background of IM as an e-collaboration tool, discusses the utilization of IM in organizations for different e-collaboration tasks, includes solutions for pitfalls and concerns in IM enabled e-collaboration, and provides the future trend of IM for e-collaboration.

BACKGROUND

There are three major types of e-collaboration systems (McLaren, 2002): (1) Message-based systems that transmit information to partner applications using technologies such as fax, e-mail, EDI, or XLM messages, (2) electronic procurement hubs, portals, or marketplaces that facilitate purchasing of goods or services from electronic catalogues, tenders, or auctions, and (3) shared collaborative systems that include collaborative planning, forecasting, and replenishment capabilities in addition to electronic procurement functionality.

Although a wide range of tools is available, many of them still rely heavily on e-mails for communication for e-collaboration, complemented by peer-to-peer communication, and calendaring.

Although the literature on e-collaboration is filled with mixed findings (Orlikowski, 1992), three major theories have been proposed to understand the e-collaboration behavior and outcomes: media richness theory (Daft & Lengel, 1986), task-technology theory (Zigurs & Buckland, 1998; Zigurs, Buckland, Connolly, & Wilson, 1999), and the mental schemas impact framework (Kock, 2004; Kock & Davison, 2003; Lee, 1994). Developed in the 1980s, the media richness theory claims that different communication media can be classified as lean or rich, according to their ability to convey knowledge and information. Lean media are not appropriate for information communication, which can be reflected in the adoption of media and the outcome of its use (Daft, Lengel, & Trevino, 1987; Lengel & Daft, 1988). Task-technology fit theory focuses on the nature of the collaboration task and its strong impact on its outcomes when certain e-collaboration technologies are used (Zigurs & Buckland, 1998; Zigurs et al., 1999). The mental schemas impact framework suggests that the mental schema possessed by individuals and the individuals' interpretation of information can significantly affect the amount of cognitive effort required to successfully accomplish the task using certain types of e-collaboration technologies (Lee, 1994).

As a strategic e-collaboration tool, instant messaging has been used by millions of individuals for business negotiation, real-time reminders, medical emergencies, or any time e-mail (Richardson, 2002). Some of the unique features of instant messaging include presence awareness, immediate closed loop communication, multi-party collaboration, anytime, anywhere access, opportunistic interaction, broadcasting of information or questions, negotiation of availability for interaction,

within-medium polychromic communication, pop-up recipient notification, silent interactivity, and ephemeral transcripts (Rennecker & Godwin, 2003; Avrahami & Hudson, 2004; Marshak, 2004).

IMMEDIATE/CONTROLLED RESPONSES FOR EMPLOYEE-EMPLOYEE COLLABORATION

IM eliminates the time typically lost to “telephone tag” or wasted trips to the office of a coworker who is absent or otherwise occupied. Employees can use IM to exchange information, pose quick questions and clarification, arrange and coordinate meetings, conduct simultaneous conversation over multiple media, solicit immediate responses, and clear up isolated issues that come up unpredictably during the day. For example, if a secretary in a law office had a question concerning a final report, she can instant-message two lawyers in the office. Both contribute to the solution. The whole process may take two minutes and everyone stays at his/her desk. It would have taken at least 10 minutes with someone walking down the hall (Beckman & Hirsch, 2001). Clients of law firms are pressured to use technologies like IM to be more responsive. Studies have found that IM can make the firm even more responsive to clients without having to spend more time to meet them in person (Krause, 2004). IM users can even reach a person on the run when the instant messaging is transferred to a mobile device for immediate responses.

Although not a rich media, IM provides cues about the status of interactants and their behaviors over time. IM displays the online presence of the employee to all other members of the collaboration. The applications include (1) a “pop-up” mechanism to display messages the moment they are received, (2) a visible list of other users, compiled by the user, and (3) a method for indicating when “buddies” are online and available to receive a message. IM applications also allow users to change parameters in the system in order to provide a more detailed view of their availability. Other users are made aware of this status via automated replies from the user or by indications visible on the buddy list. This gives other employees detailed information about each other’s availability and they can then

decide whether to contact the person later or send an e-mail, voicemail, or other message that the recipient can respond to later.

NEAR-VISIBLE EMPLOYEE-CUSTOMER INTERACTION

When a communication interface is rich in expressiveness and closely emulates real face-to-face interactions, a Web merchant will be able to enhance its perceived trustworthiness in the eyes of online consumers. As mentioned in a report in *The Wall Street Journal* (Wingfield 2002), although consumers generally enjoy the convenience of online shopping, long-distance purchases made without human contact still make them cautious before putting things into their shopping carts. To attract and maintain online customers, pioneer online retailers are using instant messaging to give “live help” to assist online shoppers when they have questions about their products or services through real-time communication with their sales associates. Currently, most live help services are implemented through instant text chatting between shoppers and customer service representatives. These conversations can be initiated either by the shoppers or the customer service representatives who engage customers proactively by greeting them or inviting them to chat online. Lands’ End’s average value of an order increases by 6% when a potential customer uses the live help function, and an online visitor who uses Lands’ End instant messaging is 20% more likely to complete a purchase than the one who does not (Ducevich, 2002).

Although vendor-supported “1-800” telephone numbers and Internet calls through VoIP are available through some Web sites, most small- and medium-sized vendors cannot afford dedicated call centers and service staff. Real-time video conferencing is even rarer. Besides the technical constraints, such as transmission bandwidth and video compression, the other concern of live help providers is that the provision of audio and video output makes a customer service representative (CSR) unable to multitask. With instant text messaging, a CSR can interact with several shoppers simultaneously, which significantly reduces the running cost while maintaining satisfactory response latency.

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