

## Chapter 3.17

# Instant Messaging as an E-Collaboration Tool

**Qinyu Liao**

*University of Texas at Brownsville and Texas Southmost College, USA*

**Xin Luo**

*Virginia State University, USA*

### 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

5 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/instant-messaging-collaboration-tool/8811](http://www.igi-global.com/chapter/instant-messaging-collaboration-tool/8811)

## Related Content

---

### Intersubjective Reasoning and the Formation of Metaconsensus

Simon Niemeyer (2011). *Technologies for Supporting Reasoning Communities and Collaborative Decision Making: Cooperative Approaches* (pp. 18-37).

[www.irma-international.org/chapter/intersubjective-reasoning-formation-metaconsensus/48239](http://www.irma-international.org/chapter/intersubjective-reasoning-formation-metaconsensus/48239)

### Social Network Sites as Community Building Tools in Educational Networking

Salvatore Nizzolino and Agustí Canals (2021). *International Journal of e-Collaboration* (pp. 132-167).

[www.irma-international.org/article/social-network-sites-as-community-building-tools-in-educational-networking/289348](http://www.irma-international.org/article/social-network-sites-as-community-building-tools-in-educational-networking/289348)

### Outcomes of Computer Mentoring

Rosemarie Reynolds and Michael T. Brannick (2009). *Handbook of Research on Electronic Collaboration and Organizational Synergy* (pp. 378-386).

[www.irma-international.org/chapter/outcomes-computer-mentoring/20186](http://www.irma-international.org/chapter/outcomes-computer-mentoring/20186)

### A Cluster-Based Routing Protocol for WSN Based on Mahalanobis Distance and AODV Protocol

Pavithra G. S. and Babu N. V. (2022). *International Journal of e-Collaboration* (pp. 1-19).

[www.irma-international.org/article/a-cluster-based-routing-protocol-for-wsn-based-on-mahalanobis-distance-and-aodv-protocol/304376](http://www.irma-international.org/article/a-cluster-based-routing-protocol-for-wsn-based-on-mahalanobis-distance-and-aodv-protocol/304376)

### Distributed Agile Development: Applying a Coverage Analysis Approach to the Evaluation of a Communication Technology Assessment Tool

Asif Qumer Gill (2015). *International Journal of e-Collaboration* (pp. 57-76).

[www.irma-international.org/article/distributed-agile-development/121627](http://www.irma-international.org/article/distributed-agile-development/121627)