

Why Gender Matters in CMC?

Supporting Remote Trust and Performance in Diverse Gender Composition Groups via IM

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Abstract. An important yet largely unexplored area in HCI is how gender affects trust development and performance in virtual settings. This proposed study aims to investigate whether providing social chat activities to collaborators in a social dilemma game before they collaborate via remote text chat can support trust development and performance among remote team members. This study will provide an understanding of how communication media as well as initial social activities affect male, female and mixed gender pairs' trust development and performance in a virtual environment from a simulated longitudinal perspective. Ultimately, the results of this study may provide insights into ways of improving performance of teams made up of diverse individuals in real world virtual collaborations.

1 Introduction and Research Questions

In recent years HCI researchers have made significant progress in understanding how different communication media influence people's trust perceptions and task performance in virtual environments. In this research little attention has been paid to the effects of gender differences in communication in virtual environments. However, there is good reason to investigate the role of gender, given research in the discipline of communication studies that has shown gender effects in face-to-face and virtual communications. This research aims to bring the gender factor into computer-mediated communication (CMC) from an HCI perspective, responding to central concerns of efficiency, effectiveness, and user perceptions. The primary objective of this research is to explore gender differences in synchronous computer-mediated communication with and without initial social activities. In particular, I ask whether initial social activities affect trust development and performance of male, female and mixed gender pairs in a social dilemma game.

The primary research questions are 1) How does gender influence people's trust development over multi-trials of a competitive task via the IM System? 2) How effectively does pre-task activity, i.e. social chat, help different gender pairings achieve higher levels of trust and better performance over multi-trials of a competitive task? 3) Is there a larger benefit of pre-task activity for males than for females in doing a task which involves conflicts of interest? If the answer is YES, do males achieve the same

level of trust as females? 4) Qualitatively, how do different gender pairings use language to communicate via the IM System and how does their language affect trust?

2 Research Plan

Following up on a previous study which I conducted from Fall 2005 to Spring 2006 [1], using many of the same procedures, my dissertation study will still focus on trust and performance with different gender pairings, but from a simulated longitudinal perspective. Specifically, it aims to answer the question: How can males improve their low initial trust in low-end technologies [1], such as IM?

A 3x2 between subjects design will be used: gender pairing (male/male vs. male/female vs. female/female), and pre-task interaction (interaction vs. no interaction). All participants will use the IM System to do an investment game. The pairs will be strangers and the gender of the partners will be revealed by the experimenter immediately before pairs perform their task. In terms of the pre-task interaction, pairs in this condition will have a 10-minute getting acquainted session, using IM to introduce themselves and get to know each other before they begin the trust game.

For the data analysis, I will largely be doing quantitative analysis on trust and performance based on the post-questionnaire and the various quantitative measures of behavior (cooperative behavior, investment payoff, number of defections). Also, I plan to do qualitative work based on the communications of pairs' discussion during the task. The goal of the qualitative work is to determine whether male, female and mixed gender pairs use different patterns of language. This will enhance understanding of how language helps build trust.

3 Significance to HCI

This study covers three areas of research, communications, gender and trust, and may impact society in several ways. First, the results will provide possible ways of establishing higher levels of trust among remote workers who have to communicate via low-end media, i.e., IM, especially for teams made up of solo males who perceive lower levels of initial interpersonal trust [1]. Second, this research will contribute to the literature of the effects of group gender composition on performance outcomes. To date, there is only a small body of literature that deals with this issue in HCI. Third, the discourse analysis of conversation style in IM will provide understanding of communication patterns in different gender groups. Indeed, as the work place becomes more diverse in term of gender culture and business becomes more global, team leaders need to become even better at interacting with diverse team members and more flexible in adjusting their own styles to different group compositions.

Reference

1. Sun, X., Zhang, Q., Wiedenbeck, S., & Chintakovid, T. Gender Differences in Trust Perception when Using IM and Video. In Proc. of CHI2006, ACM Press, (2006)