

“Invisible Whispering”: Restructuring Meeting Processes with Instant Messaging

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*All the world's a stage,
And all the men and women merely players:
They have their exits and their entrances;
And one man in his time plays many parts,
– Shakespeare, As You Like It.*

Introduction

Information and communication technologies (ICT) have been used to transcend physical barriers to interaction in group decision and negotiation. These same technologies can also result in the creation of new communicative boundaries and the reconfiguration of existing ones. Communicative boundaries influence both the content and process of communicative action, whether in one-to-one, many-to-many, or hybrid communication contexts (DeSanctis and Gallupe, 1987). Consequently, changing communicative boundaries would be expected to change the processes and outcomes of group decision making and negotiation, even if all the same people were involved.

Instant messaging (IM) is one of the most rapidly proliferating workplace communication technologies in use today (Economist, 2002; Flanagan, 2005; Isaacs et al., 2002; Shiu and Lenhart, 2004). IM offers the possibility of dynamically reconfiguring communication boundaries to enable group members to communicate in different ways and to bring other individuals into a group meeting. Though similar to both email (e.g., text), and telephone communication (e.g., synchronous), IM's unique capabilities enable IM

users to engage in communicative configurations, such as multiple, simultaneous conversations, that would otherwise not be physically possible in geographically-distributed meetings nor socially acceptable in face-to-face settings. The number and diversity of simultaneous conversation configurations using IM is limited only (in most cases) by the user's information processing capacity.

Because of its relative novelty as a workplace communication tool, IM has only recently captured information systems researchers' attention. Research to date has focused primarily on understanding the purposes and characteristics of one-to-one IM conversations (Cameron and Webster, 2005; Isaacs et al., 2002; Nardi et al., 2000), rather than the patterns and implications of IM interaction at a collective level in organizations.

In this paper, we report findings from an exploratory interview study of workplace IM use with 23 people from two organizations. We began with the intention of studying the general use of IM, but the focus of the study quickly shifted to one specific use of IM. The study revealed a widespread practice we call “invisible whispering,” the use of IM during face-to-face or telephone decision-making meetings to communicate privately with one or more others. Through invisible conversations with attendees of the same meeting, information sources outside the meeting, or business and social contacts unrelated to the meeting, meeting participants can fundamentally alter the social

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and spatial boundaries of the meeting and dynamically (re)structure the content and temporal ordering of meeting-related interactions.

The purpose of this paper is to define and characterize this phenomenon, explore its impact on group decision and negotiation, and raise questions for subsequent research. After summarizing the relevant literature, we illustrate the practice of invisible whispering with several examples, drawing on Erving Goffman's (1959, 1974/1986) theatrical framing of social interaction as a lens to illuminate the boundary changes effected through these invisible conversations. Then we employ "genre" as an analytic device (Orlikowski and Yates, 1994) to sketch a taxonomy of invisible whispering conversation types. Finally, we draw on prior research to discuss the potential implications of this practice for group decision and negotiation effectiveness and to suggest questions and directions for further study.

Prior Research and Theory

Much prior work has studied the use of ICT to support group decision and negotiation, whether by supporting teams working in either face-to-face meetings or virtually from different places and/or times. Since our focus in this chapter is on invisible whispering in same-time meetings, we will begin by providing a brief background of prior research on meetings and the role of ICT in meeting support. We will then turn to IM and describe the capabilities of IM that enable new communication configurations and summarize the key findings of IM studies to date. Finally, we introduce the concepts of "front stage" and "back stage" from Goffman's (1959) theatrical analyses of social interaction as a lens and vocabulary for describing and analyzing the changes in social structures and processes enabled by IM use in same-time meetings.

Meetings and Meeting Support Technologies

Scheduled face-to-face meetings are typically conceptualized as bounded social structures characterized by norms for attending, intruding, and contributing (Volkema and Niederman, 1995). Participants

are invited (or required) to attend and each person's presence is known to the other attendees. The rules governing meeting participation may range from strict adherence to Robert's Rules of Order to "free for all," depending upon the organization and particular meeting, but there is social pressure to adhere to the rules with deviators likely to be ignored or subtly disciplined.

The use of ICT to support meetings has often been modeled on the traditional face-to-face meeting with the objective of either enhancing traditional meetings, such as "smart" whiteboards and group support systems, or enabling meetings among physically-dispersed participants, such as web conferencing (Dennis and Garfield, 2003; DeSanctis and Gallupe, 1987). Despite the variety of available tools, ICT-supported meetings are usually similar to face-to-face meetings in their focus on the group – making information equally available to all participants, facilitating contributions from all participants, and synthesizing all participants' contributions into a coherent whole that can be viewed simultaneously (Ackermann and Eden, 2005; Dennis and Garfield, 2003; DeSanctis and Gallupe, 1987; Fjermestad and Hiltz, 1999; Shaw et al., 2003).

More rarely, ICTs that support dyadic and small group communication, such as IM, have been used in parallel with other meeting technologies, such as computer or audio conferencing, or bundled with group collaboration technologies, such as WebEx or Lotus Notes, enabling private one-to-one or one-to-many side conversations in parallel with the main meeting. If we step outside the workplace and examine the IM literature more broadly, there are a few studies of such simultaneous use of text chat during group activities, where it is referred to as "backchannel" communication (Cogdill et al., 2001). For example, Cogdill et al. (2001) studied backchannel one-to-one IM conversations that occurred during class discussions held in a text-based MUD,¹ and McCarthy and Boyd (2005) studied user perceptions of backchannel communication during presentation sessions at a professional

¹ A MUD (Multi-User Domain) is multi-player, online, role-playing, game environment. MUD originally stood for Multi-User Dungeon, but has been revised in common usage to include role-playing game environments that are not set in the traditional MUD fantasy world of elves, dwarves, monsters, and so on.

conference. These studies show that such backchannel interactions can be used to discuss both content and process issues, to encourage participation, or to alleviate boredom with the collective-level interaction. Another study in the technology design literature that did consider the performance implications of invisible whispering (Yankelovich et al., 2005) asserts that backchannel communication improves discussion efficiency and effectiveness, and then focuses on designing a user interface to make backchannel interaction even more convenient. The discovery of these studies from other contexts supports our perception that concurrent one-to-one IM communication in group contexts is a pervasive phenomenon, but they offer little insight about whether (or how) these IM conversations affect group decision-making and negotiation in workplace settings.

Instant Messaging

As defined by Nardi et al. (2000), IM is a "tool which allows for near-synchronous computer-based one-on-one [or one-to-many] communication" (p. 2) between online parties. IM began as a predominantly youth-oriented tool (Quan-Haase, 2008), and the largest group of adopters is still teenagers and young adults (Lenhart et al., 2005, 2001; Shiu and Lenhart, 2004; Valkenburg and Peter, 2007) who use IM primarily for social communication (Flanagin, 2005; Gross, 2004; Huang and Yen, 2003; Valkenburg and Peter, 2007).

However, IM is now part of the everyday lives of millions of Internet users (Zhao, 2006; Shiu, and Lenhart, 2004; Wikipedia, 2008) and is spreading into the workplace (Chen, 2003; Cunningham, 2003; Information Management Journal, 2003; Lin et al., 2006; Shiu and Lenhart, 2004; Turner et al., 2006).

In the US, workplace IM use has grown faster than email use (Flanagin, 2005). According to one study, IM is being used in almost 85% of companies worldwide (Perey, 2004), and in some firms, IM may be more extensively used than email (e.g., Turner et al., 2006). IM may be so ingrained as part of the organizational fabric that organizational norms favor IM use over other media (Turner et al., 2006). Some experts predict that it is only a matter of time before organizations issue IM accounts to new employees the same way they issue email accounts (Swartz, 2005).

Although IM is similar in many ways to the other types of ICT-based group decision and negotiation technologies that has preceded it, it also has several distinct characteristics that suggest it may engender different usages. IM is similar to prior technologies in that it enables users to send text messages. However, the messages can be directed to the group as a whole, or to selected members of the groups or to individuals outside of the group. As the name suggests, IM was originally conceived of as a synchronous tool, but today it also can be used asynchronously (Chung and Nam, 2007; Huang and Yen, 2003). Although use is most commonly synchronous, users can leave messages for users who do not respond in the same way that telephone voicemail messages can be left. IM employs a very small text window for messages, so most messages are quite short.

Drawing on prior characterizations of communicative media (Daft et al., 1987; Sproull and Kiesler, 1991), we identified four capabilities of IM applications that, in combination, are particularly important in enabling new communicative practices: *silent interactivity*, *presence awareness*, *polychronic communication*, and *ephemeral content*.

It is the *silent interactivity* of IM that makes "invisible whispering" possible. Similar to the telephone in its immediacy and interactivity, the silence of text-based IM, like other ICT technologies, enables users to address ideas and questions when they occur without disrupting others or being overheard, even when in a public setting.

The *presence awareness* capability, a dynamic directory of logged-in IM users, further enables whispering by making visible whom else is available for conversation (Li et al., 2005; Perttunen and Riekkilä, 2004; Shaw et al., 2007). This capability extends the set of potential communication partners because the directory is visible to and includes everyone logged into the IM application. Users who remain logged into the system as "available" while IMing with others, talking on the phone, participating in meetings, and so on appear to be as receptive to incoming messages as other workers alone at their desks. In addition, they are as available to customers, suppliers and social friends as they are to coworkers, provided they are logged into the same IM application.

IM also makes it possible to carry on multiple conversations simultaneously, a practice Turner and Tinsley (2002) call "polychronic communication." In

IM, each conversation scrolls through its own “pop-up” window on the user’s device screen, undetectable to each of his or her other IM communication partners. Users could be engaged simultaneously in IM conversations with co-workers, their boss, subordinates and their spouse (Turner et al., 2006). The number of potential simultaneous conversations is limited only by a user’s capacity to manage them.

Finally, in many currently-used IM systems, the interaction transcript is erased automatically when the users close the conversation window, although some systems permit users to save a transcript (Cunningham, 2003; Li et al., 2005). This *ephemerality of the message transcript* plays a role in many users’ choosing IM rather than email to communicate sensitive, embarrassing, humorous, or critical comments they would prefer not be archived on the corporate server (Lovejoy and Grudin, 2003). Ephemerality may soon disappear, however, as designers build in archiving and transcript-searching capabilities to address managerial concerns about intellectual property protection and liability exposure (Chen, 2003; Cunningham, 2003; Lovejoy and Grudin, 2003; Poe, 2001). Ephemerality is in sharp contrast to many other group technologies that provide a group memory to ensure that all communication is recorded (Nunamaker et al., 1991) and could potentially undermine trust, in both the process and other participants (see the chapter by Schoop, this volume).

Because of its relative newness as a workplace communication tool, IM has only recently captured information systems researchers’ attention (Cameron and Webster, 2005; Grudin et al., 2004; Isaacs et al., 2002; Nardi et al., 2000; Quan-Haase et al., 2004). Research to date has focused primarily on characterizing IM conversations, such as their purposes (e.g., Nardi et al., 2000), differences in the character of conversations of “light” versus “heavy” IM users and “frequent” versus “infrequent” communication partners (e.g., Isaacs et al., 2002), users’ experience of IM interaction relative to other media (e.g., Volda et al., 2004) and factors affecting the adoption and use of IM (e.g., Chung and Nam, 2007). Findings suggest that IM is a more flexible medium than might have been predicted by its interface and capabilities and is frequently used for expressive communication (Nardi et al., 2001; Volda et al., 2004). The availability of IM may also enable conversations that would not have occurred if IM had not been available (Cameron and Webster,

2005). Though some of these studies do mention IM use during meetings (e.g., Quan-Haase et al., 2005; Woerner et al., 2004), Koeszegi and Vetschera’s review (this volume) of communication during group decision and negotiation processes suggests that this communication channel has not yet been considered in the group decision and negotiation literature.

Goffman’s Dramaturgical Frame

In this study, we use Erving Goffman’s (1959) studies of face-to-face interaction as a lens and vocabulary for exploring “invisible whispering,” the practice of using IM to communicate silently with others during same-time meetings. Goffman used the term “interaction order” to denote the complex but normalized processes by which social actors regulate their interaction with others. Though based on face-to-face communication, his work nonetheless provides a useful vocabulary for describing interaction practices regardless of the medium used. The portion of his work particularly relevant to the phenomenon under study here is the conceptualization of social action as theater, segmented into “front” and “back” regions, or “stages,” differentiated from one another by (1) physical boundaries, (2) behavioral expectations, and (3) the nature of the relationships among the people co-present in the region.

“Front” regions are characterized by the presence of an “audience,” people who expect one’s behavior to be consistent with an official role and its relationship to the audience. Social actors perceiving themselves to be in the presence of an audience tend to modify their behavior to be more consistent with an idealized notion of their formal role, i.e., team leader, technical expert. For instance, members of an organization may share a conception of a good team leader as someone who is “on top of things, keeps everyone informed, and runs a good meeting.” The team leaders in that organization, when in the presence of their team members, may try to behave in ways that they believe exhibit those traits and capabilities.

“Back” regions, in contrast, are characterized by interactions among “teammates,” people who share the same role with respect to the audience or who collaborate to foster the same impression (Meyrowitz, 1990). In the back regions, actors relax the illusion of the ideal

and act in ways that may be incongruent with a previously projected "front" persona(e). The team leader in the previous example, when out of visual and auditory range of team members, may acknowledge that he or she feels insecure about managing an emerging situation.

The same physical location may be experienced as either a front or back region depending upon the others present. For example, an informal hallway conversation between peers could begin as a back stage interaction but be immediately transformed into a front stage "performance" when joined by their boss or by a customer.

In face-to-face situations, which were the focus of Goffman's work, social actors are constrained, socially and physically, to participate *serially* in front and back stage conversations and actions, that is, to behave consistent with *either* one's front stage *or* one's backstage persona(e). In fact, we depend upon audience segregation, whether by physical barriers, such as doors and walls, or by social conventions, such as establishing distance between conversation groups in an open setting, to enable variations in our behavior across roles. When boundaries are ambiguous or misinterpreted by one actor or another, front and back stage regions and behaviors may inadvertently overlap, creating an uncomfortable "breach" of unwritten social agreements, such as when one's boss or client overhears a disagreement with one's spouse or child.

The integration of IM communication into face-to-face, as well as technology-mediated contexts, however, offers new possibilities for redrawing the boundaries between front stage and back stage interactions. In contrast to the typical scenario of socially-bounded groups interacting through an integrated, but restricted, information exchange and structuring tool that is the focus of most group decision and negotiation studies (see the chapters by Salo and Hamalainen; Ackerman and Eden; Hujala and Kurttila, this volume), the use of instant messaging allows social actors to dynamically redraw the social and information boundaries repeatedly throughout the decision or negotiation process. In this paper, we explore the case of IM use during face-to-face, telephone, and computer-mediated meetings to consider how IM may affect the structuring of meeting boundaries and, ultimately, the efficiency and effectiveness of decision-meeting processes.

Method

Participants

The study participants were 23 managers and workers from two U.S.-based, globally-distributed organizations whose members use IM on a daily basis. The two organizations offered variation in both industry and work tasks while the participants themselves were reasonably matched with respect to education and experience using IM.

GlobalNet,² a high-tech company, manufactures and sells computer products and consulting services to corporations, public institutions, and small businesses on a global level. The eleven GlobalNet participants – three managers and eight individual contributors ranging in age from 22 to mid-50s – worked in the Educational Services unit with roles in program development, operations support, and systems administration. The members of the systems administration group were co-located with one another and with their manager, but the members of the program development and operations support groups were geographically-distributed. Even members who lived in the same city and based in the same organizational campus, however, considered themselves to be "distributed" because they often worked from home. All three groups served remote internal and external customers with whom they communicated through a combination of media including telephone, email, and IM. At the time of our study, the Educational Services unit had been using AmericaOnline Instant Messenger (AIM), free software available through the Internet, for approximately 3 years. The newest members to the group had adopted IM "within days of being hired," 1 year prior to our study. Though the participants' use of IM varied, each participant reported using IM at least daily.

PharmaCo, a pharmaceutical company, develops and manufactures a broad spectrum of pharmaceutical products. Twelve PharmaCo members – two managers and ten individual contributors also ranging in age from 22 to mid-50s – represented two subgroups of the Information Technology Services (ITS) group: systems administration and IT auditing. The members of

² All names are pseudonyms.

Table 1 Summary of sample characteristics

Sample characteristic	GlobalNet	PharmaCo
Number of participants	11 Interviewees – 3 Managers – 8 Knowledge workers	12 Interviewees – 2 Managers – 10 Knowledge workers
Ages	22 to mid-50s	22 to mid-50s
Organizational role of workgroups	Educational services – Program development – Operations – Systems administration	Information Technology Svcs – Systems administration – IT Audit
Physical configuration	Primarily distributed	Primarily co-located
IM Application	AOL Instant Messenger (AIM)	IBM SameTime

the systems administration group were co-located and worked with co-located internal customers. The members of the auditing group were based in the same office as the systems administration group but worked remotely on an ad hoc basis when performing audits at other PharmaCo sites. Both groups communicated among themselves daily via a combination of face-to-face, telephone, email, and IM exchanges. At the time of the study, the PharmaCo participants had been using IBM's SameTime, an IM application bundled with Lotus Notes, for about 18 months. Though the intensity of use varied, 11 of the 12 participants reported being at least daily users. The sample characteristics are summarized in Table 1.

Data Collection

Due to the limited number of published studies of workplace IM use, we designed the study to be an exploration of IM use in the workplace, intended to capture the full range of its use. Using an interview protocol based on descriptions of IM use in prior studies (Nardi et al., 2001; Isaacs et al., 2002) as our starting point (Appendix), we used a semi-structured approach to interview the 11 GlobalNet participants. During the interviews, we encouraged participants to open the application and demonstrate their use of IM as they talked with us to prompt articulation of practices that might only be evoked through activity (Duguid, 2005), including any additional ways they used IM that were not covered by our questions. In addition, the participants also often received instant messages during the interview, providing an opportunity to observe their response practices and to ask additional questions.

In these interviews, we noted that most of the GlobalNet participants discussed IM use during meetings, a practice we found interesting with implications for both research and practice. We added explicit inquiries about IM use during meetings to the interview protocol for the 12 PharmaCo members (see Walsham, 2006).

Interviews in both organizations lasted approximately 1 hour each, and were conducted by two authors. During the interview, we made handwritten notes, capturing many verbatim quotes, which we later transcribed.

Data Analysis

We began with a general analysis of IM use in both organizations. One author coded the interview transcripts in NVivo. A second author reviewed the coding and the two settled on the final categories and definitions. The entire data set was then recoded using the revised categories and definitions until both authors agreed on the codings. This set of coding provided a portrait of overall IM use that served as background for analyzing the invisible whispering practices.

Next we focused only on those categories associated with the use of IM in meetings. Using Goffman's framework, we defined "front stage" to be the focal meeting activity and any associated statements or postings that were intended for all meeting participants. Correspondingly, we defined "backstage" to be any communication occurring during the meeting that was not intended to involve all meeting participants. We drew on the notions of *genre* and *subgenre* (Yates and Orlikowski, 1992) to analyze each example of backstage IM use in the data and identified six types,

or subgenres, of backstage conversations differentiable by their purposes with respect to the focal meeting. We further refined the subgenre definitions by reapplying the theatrical framework to consider the *roles* played by the participants in each conversation type.

Finally, we used Goffman's framework and the identified subgenres to compare "single-channel" meetings (i.e., face-to-face, audioconference) with "dual-channel" ones (e.g., IM is used as a "backchannel" in combination with the main meeting medium) to assess the nature and extent of the structural and process changes resulting from within-meeting IM use.

Findings

Our primary finding is that by using IM, meeting participants were able to participate in communication configurations not socially acceptable or physically possible without the use of IM, such as participating simultaneously in front stage and back stage interactions and in multiple, concurrent back stage conversations. Furthermore, these communicative configurations fundamentally altered meeting processes including information sharing, decision making, and possibly also the group dynamics more generally.

We identified six types of invisible whispering conversations in the examples described to us, distinguishable by their purpose relative to the focal meeting activity. These ranged from directing the focal meeting to efforts to better understand the meeting to monitoring and managing a wide variety of extra-meeting activities. We begin with a few examples to illustrate the practice of invisible whispering, then employ "genre" as a lens to differentiate among the types of invisible whispering conversations. Finally, we conclude this section by discussing variations in the incidence and practice of invisible whispering within and across organizations.

Creating Multiple Stages

Three typical meetings – a group interview of a job candidate, a "pitch" meeting to upper management, and a project team meeting – illustrate the changes in meeting structure and participant roles resulting from

the concurrent use of IM during the meeting. The job candidate interview described to us by two members of one group was conducted via a telephone conference call. The audible interactions over the telephone that were accessible to everyone participating in the interview, including the interviewee, constituted the "front stage." At the same time, all the interviewers had formed a "group" in IM prior to the interview, enabling the equivalent of a "chat" window that served as a collective backstage, invisible to the interviewee. In addition, the interviewers retained the ability to engage in one-to-one messaging among themselves as well as with anyone else logged into IM at the same time.

Although the group had developed a plan of questions prior to the interview, they used IM to modify the plan, changing the content and order of the questions (and *questioners*) on the fly in response to the candidate's responses as described in the following comment:

She didn't know as much about this one technical point as I thought she would and as we had agreed was needed for the position. So I shot off a message saying, "She doesn't understand A. Skip the questions about B and go straight to C."

The manager described how others in the interview contributed similar comments and suggestions to the group IM window. She went on to say that she thought this interview process had been very efficient and that she planned to push for more interviews to be conducted in this way:

Usually we have to have a meeting after the interview to discuss our impressions. This was much more efficient. We could do all of that at once. After the interview was over, we stayed online for a couple more minutes to make our decision, and we were done.

In addition to messages posted to the whole group, the manager indicated that she had also exchanged one-to-one messages with her coworkers during the interview, sharing impressions of both the candidate and the process, and had continued to field messages (on other topics) from other coworkers not participating in the interview.

In the "pitch" meeting, the same group that had conducted the interview was now in the "hot seat" as the primary performer, seeking approval for a new idea from a senior executive team via a telephone conference call. In this setting, participants sent messages to

the group spokesperson, suggesting points to emphasize, terms to clarify, and alternative ways to respond to the executives' questions, like a prompter whispering instructions from backstage. The spokesperson told us about receiving these messages while making the presentation:

I was struggling with how to word the response to a particular question and an instant message from Marie popped up on my screen saying "say this," and I read it and it sounded pretty good, so I said that.

Marie described her experience of the same episode as *virtual ventriloquism*:

I could tell he was struggling, and I shot off a message saying, "say this . . . ," and a few seconds later I heard David saying my words. It was like being a virtual ventriloquist.

Other members of the presenting group also described exchanging messages among themselves about the quality of the spokesperson's presentation, the executives' responses, and alternative strategies if the executives did not seem favorably inclined toward the idea. They did not establish a group chat for this event, so all the IM communication was one-to-one, with each conversation constituting a separate backstage space, and each participant potentially engaging in multiple simultaneous backstage conversations.

In both of these examples, one party, whether a person or a group, took on the primary role of "performer" while another party, again an individual or group, took on the primary role of "audience" for the duration of the meeting. The communication between the two parties, albeit more interactive and bidirectional than in traditional theater, constituted the "front stage" activity, which participants supported, managed, and critiqued in concurrent "back stage" IM interactions.

In a project team meeting, the third example, the roles of "performer" and "audience" were less clearly delineated and more dynamic. As the meeting progressed, the focus shifted from one participant to another as each provided a status report on his or her assignments and posed questions to other team members. Even when not speaking, attendees often considered themselves very much "on" due to interdependencies between their own assignments and the discussed topics. Participants reported using IM in this context for a range of purposes including gathering

needed information from colleagues outside the meeting, asking questions of other meeting attendees, and continuing discussions of topics raised in the front stage meeting. One participant who routinely used IM during project meetings indicated that one person could be involved in a significant number of concurrent backstage conversations:

In really hot meetings, there might be five or six or more conversations going on – and those would just be the ones involving me – but I can only handle about three at the same time. More than that, and I get overwhelmed and start shutting them down.

As this example shows, the potential for backstage interaction may exceed a participant's capacity before approaching any technical limitations of the IM application.

Using Goffman's definition, these uses of IM during meetings constitute examples of backstage interaction, conversations that allow the participants to interact informally with their peers, relaxing the behaviors and language expected when presenting themselves front stage. Several characteristics of these conversations differentiate them from their face-to-face analogue studied by Goffman. First, the "actors" remained front stage for the duration of the meeting, even when participating in backstage conversations. Second, meeting participants were able to participate in backstage conversations with remote others, a practice not possible in face-to-face interaction nor in technology-mediated meetings, such as audio or video-conferencing, without IM where participants are constrained to front stage interactions via the meeting medium (Larsson et al., 2002). Finally, they were able to participate in multiple, concurrent backstage conversations, each conversation undetectable to the person's other conversation partners.

Invisible Whispering as a Distinct Communicative Genre

The rhetorical concept of "genre" (Freedman and Medway, 1994) has proven useful as an analytic device in the study of organizational communication (Yates and Orlikowski, 1992), particularly for identifying patterns and social processes in the archives of group communication. As defined by Orlikowski and Yates, communicative genres are "socially recognized types

of communicative actions – such as memos, meetings, expense forms, training seminars – that are habitually enacted by members of a community to realize particular social purposes” (1994, p. 242). Genres are distinguishable from one another by both their “substance and form.” “‘Substance’ refers to the objective, themes, and topics being addressed in the communication” (Yates and Orlikowski, 1992, p. 301), while “‘form’ refers to the observable physical and linguistic features of the communication” (ibid, p. 301). Though genre can be defined independently of the media used, the media employed can be a defining feature of the form, and changes in communication media may catalyze either changes in an existing communicative genre or the emergence of a new genre. In addition, communicative genres are associated with particular recurrent, socially-defined and, thus, socially recognizable situations (ibid).

We propose that *invisible whispering* constitutes a distinct communicative genre, typified by the use of IM (form) to communicate privately (purpose) with one or more others during a concurrent synchronous interaction, such as a meeting or telephone conversation (recurring situation). Though a close cousin of the age-old practices of face-to-face whispering or note passing, IM enables sufficient differences in the nature of interaction to be recognized as distinct from them. The differences between note passing and IM-enabled whispering could be seen as similar to those between an email, a memo, and a letter – communicative types with similar features, i.e., formatted text, but socially distinct forms and rules of use.

“Subgenres” are recurring communicative actions socially recognizable as a particular genre, but distinct from other examples of that genre in either purpose or form. For instance, the rhetorical act of a “verbal request” is recognizable by its purpose as belonging to the genre “request” but differs in form from a “written request” or a “request for proposal,” communicative acts that invoke different social rules and, thus, evoke distinct social responses. Alternatively, subgenres may be similar in and recognizable by their form, i.e., a memo, but vary in purpose.

In the particular case of invisible whispering in the context of organizational meetings, we identified six distinct subgenres: *directing the meeting*, *providing focal task support*, *providing social support*, *seeking clarification*, *participating in a parallel subgroup meeting*, and *managing extra-meeting activities*. These

represent communicative actions similar in form – i.e., all use the automatic format provided by the IM application – but varying in purpose. In the remainder of this section, we describe each subgenre in more detail.

Directing the Meeting

Invisible whispering conversations categorized as “directing the meeting” are characterized by language intended to influence the content or process of the meeting. Messages typically included instructions about what to say (or not say) or the ordering of actions or topics to achieve a particular outcome or create a particular impression. Meeting contexts where these exchanges occurred included interviewing a job candidate, a project team meeting, and making a pitch to senior management. For example:

One of my managers was presenting in a global conference call and had a hard time keeping the attention of other members...One of the other team members used SameTime [IM] to send a message saying “you’re losing them” and gave the manager pointers on how to get them back.

The example of “virtual ventriloquism” described in the previous section would also be an example of *directing the meeting*. This practice resembles that of the “prompter” in live theater whose role it is to feed lines and directions to an actor in the event that he or she falters or in the event of a set malfunction. Unlike traditional theater, however, the “lines” of organizational actors depend on the comments and actions of their audience, requiring some degree of improvisation in every conversation. This use of IM allows actors to come to one another’s aid to enact a (presumably) better collective performance (see Quijada, 2006).

Similar strategies are also employed in diplomatic-style meetings where the meeting delegates, sitting in an inner circle, are surrounded by an outer circle of aides who whisper in the delegates’ ears or pass notes to them throughout the meeting. The practice described here, however, differs substantially from its co-present predecessor by being invisible. Not only is the *content* of the messages unknown to parties outside the exchange, but the very *occurrence* of the exchange remains unknown, even to people in the same room.

Providing Focal Task Support

These conversations were intended to help the group accomplish its work and to minimize process losses due to missing information, lapses in attention, or set-up time. A common practice for keeping the meeting moving ahead was “pinging” a coworker suspected of being distracted by other work with a brief IM saying he or she is about to be called on. The following quote represents recurring comments:

[When we’re meeting], I’ll ping her so she’ll know that she needs to get on the call or will be called on [to produce numbers, explain a situation, etc.]

Though typically between meeting attendees, task support conversations also included requests from a meeting participant to someone outside the meeting for needed input. We were told that this was a very common practice and that IM was even used to invite outsiders into the meeting briefly to provide information and answer questions directly rather than relaying comments through a meeting attendee.

When participating in conversations that provide focal task support, meeting attendees act in the role of a stage manager, looking ahead to the next “scene” and getting the necessary people and resources in place. Without the concurrent use of IM during the meeting, this type of work would either precede the meeting, result in delays during the meeting, or require follow-up after the meeting. As an adjunct to pre-meeting planning, this seems to be a constructive use of invisible whispering, enhancing meeting efficiency. Some study participants, however, suggested that, over time, the practice had also had an unanticipated negative effect:

... The downside is that people may be less prepared for meetings because they know they can get it [any needed information] in real time during the meeting

So rather than supplementing good meeting practices, such as thorough pre-meeting planning and data-gathering, the ability to use IM during meetings may actually discourage preparation.

Seeking Clarification

Another reportedly frequent use of invisible whispering was asking another meeting participant to verify or explain a third participant’s comments. Examples of

conversations in this category include asking for the meaning of a term, checking the accuracy of a fact, or asking for background information to put a comment in context, as illustrated in this quote:

If there’s something in a meeting you don’t understand, you can send a quick IM, “Hey, so and so said this. What does he mean?”

Participants reported that these exchanges helped them to stay engaged in meetings by having their questions answered in real time. When participating in these conversations, the meeting attendees are primarily in the role of audience members – e.g., listening to others with the intention of understanding the interactions in the front-stage arena.

The types of invisible whispering conversations described to this point were intended to facilitate the meeting and support meeting participation in ways that might have been handled traditionally through pre-meeting coordination, note-passing, side-bar conversations, or overt interruptions. A recurring theme across organizations was the perception that invisible whispering provided a “less intrusive” or “more polite” way to accomplish the same objectives.

Providing Social Support

Invisible whispering conversations that provide social support are defined as those occurring between meeting attendees to address the affective dimension of meeting participation. A common example of this type of invisible whispering was using IM to invite quieter members to contribute. Similar to calling on quieter participants in face-to-face meetings, IM was used to privately encourage someone to contribute without the risk of embarrassing him or her. Participants also described examples of offering one another comfort when criticized or given bad news in the meeting. The following quote is illustrative:

Like sometimes you can tell that a comment hurt someone’s feelings or some announcement came as sort of a shock, and you might send a message saying “ouch!” or “sorry about that” or “hang in there.” People have sent messages like that to me. Sort of a pat on the back

Participants also reported using IM to elicit social support from others. A common practice in one group was sending instant messages to “poll” other meeting

participants to assess one's base of support before introducing a new topic or asserting a particular position. This manager was aware of the practice occurring in his group:

People can be shy about bringing up problems in meetings without approval from their peers. Background IM enables them to check before they bring it up.

Invisible whispering conversations providing social support resemble the conversations an actor might have backstage with another cast member or the director either before going onstage or after coming off. These conversations bolstered confidence and provided a reality check for one's perceptions. These same conversations may occur before or after meetings not supported by IM interaction, but the invisibly whispered conversations occur during the "performance," potentially altering the actor's behavior in real time and, consequently, the meeting outcome.

Participating in a Parallel Subgroup Meeting

Conversations of this type are catalyzed by and related to the focal meeting but independent of its current content and flow. In addition, parallel meetings typically involve *subgroups* of meeting attendees rather than one-to-one conversations. Two types of IM conversations identified in our data illustrate this subgenre: a subgroup working to solve a problem surfaced by the main meeting and a subgroup critiquing the meeting or its participants.

The problem-solving subgroup enters into a problem-resolution or strategy-development conversation in response to new information received in the meeting. At least some participants perceived this use of IM to be a time-saver, as illustrated in the following quote:

Use of IM in the background shortens meeting times because it prevents subsequent meetings to enable some teams to draw conclusions. For example, one group in a meeting can have private conversations to reach a conclusion that would normally require adjournment and a subsequent meeting to discuss.

A theatrical analogue to this conversation type would be a meeting of the stage hands to resolve a set malfunction, seemingly oblivious to the current performers on stage. The difference here is that the "stage hands" are also "actors," standing on the metaphorical

stage of the focal meeting while invisibly engaging in backstage interaction.

The second example of this type of conversation, the critique session, involved several participants commenting on the meeting and other participants. These conversations are characterized by the exchange of personal opinion and, in contrast to the problem-solving subgroup, the absence of a work-related objective. Gossip and critical commentary are not new phenomena in organizations but traditionally have been reserved for the "meeting after the meeting" that occurs in the hallway or via email. In this case, however, the actors are engaging in backstage interaction while physically "on stage," whether bodily in a room or as a voice on the phone.

Managing Extra-Meeting Activities

Conversations to manage extra-meeting activities are characterized by interaction between a meeting attendee and one or more others outside the meeting about topics unrelated to the focal meeting. Participants used IM features to designate themselves as "busy" during some meetings, but they remained "available" during others unless instructed to do otherwise by the meeting organizer. For example, participants frequently received IMs during our interviews. Typically, they immediately acknowledged the message with a quick answer or a promise to respond later. One GlobalNet participant noted that the chances of receiving a response from someone engaged in a meeting were about "50/50."

A common justification for engaging in this practice by managers was the need to be accessible to their subordinates. Due to the large proportion of managerial time spent in meetings, IM was often a manager's only access to his or her subordinates – and vice versa – for several hours at a time. One manager reported "training" new employees to use IM to contact her due to the proportion of her workday devoted to meetings. She said that she did not answer all instant messages but that she always checked the name of the sender and read messages from people working on time-sensitive assignments or who had a track record of contacting her only when her input was required to move forward.

While the use of IM to interact with others outside the meeting about unrelated topics may detract attention from the meeting, being able to monitor extra-meeting activities made participants feel less “trapped” by their extensive meeting obligations. Prior to the use of IM, voice and email messages would accumulate until the recipient returned to his or her desk. Alternatively, urgent messages were delivered by secretaries or, more recently, delivered via cellular telephone, interrupting the recipient’s participation in the meeting if not the meeting itself. Rather than just substituting for these earlier practices, however, invisible whispering differs from them (again) in that the “actors” remain physically “on stage” while giving instructions to “backstage” personnel. The distinguishing characteristics of the conversations types and the role implications for meeting attendees are summarized in Table 2.

In summary, the use of IM enables meeting attendees to participate simultaneously in front stage and back stage interactions, to participate in multiple, concurrent, back-stage interactions, and to influence front-stage activity through real-time backstage communication. Said differently, in any given meeting, participants may play the roles of (1) “actor,” performing the main business of the meeting, (2) “director” or “prompter,” invisibly orchestrating

the events on the front stage, (3) “stage manager,” cueing actors and positioning information “props” (4) “audience member,” following the focal meeting as a performance to be understood, (5) “critic,” commenting on the meeting as if he/she did not play a role, and (6) “disinterested bystander,” interacting with others on topics unrelated to the meeting. When participating in invisible whispering conversations, meeting participants are playing at least two of these roles simultaneously.

Use of Invisible Whispering

Variations existed both within and across organizations with regard to the frequency and comfort of engaging in invisible whispering. Within each organization, the desire to participate in invisible whispering and tolerance for the practice ranged from no interest at all to having seemingly no limit to the number of conversations that could be juggled. For example, one GlobalNet participant, a daily user of IM for work-related communication, said she would not use IM during meetings because she found it “too distracting.” The process resulted in cognitive overload. In contrast, we observed one of her coworkers who routinely kept six to ten IM conversations open

Table 2 Summary of invisible whispering subgenres

Subgenre	Definition	Example	Participant roles
Directing the meeting	Messages among team members intended to influence the content or process of the meeting	You’re losing them. Go back to <i>X</i> and define <i>Y</i> and tell them how that relates to their group.	<ul style="list-style-type: none"> ● Director ● Prompter
Providing focal task support	Messages intended to keep the group on task and minimize process losses due to delays for information; may be between meeting attendees or to someone outside the meeting.	The way this conversation is going, I think they’re going to ask for last month’s numbers [so you should have them ready.]	<ul style="list-style-type: none"> ● Stage manager
Seeking clarification	Requests among meeting attendees for facts or explanations to improve one’s understanding of the meeting.	John said there are now 25 test sites. Did we lose some?	<ul style="list-style-type: none"> ● Engaged audience member
Providing social support	Conversations between meeting attendees that address the affective dimension of meeting participation.	That was kind of harsh. Are you ok?	<ul style="list-style-type: none"> ● Coach
Participating in a parallel subgroup meeting	Messages among a subgroup of meeting attendees on a topic related to the meeting but independent of current meeting events.	If they change the production schedule, we’re going to have problems. If we reprioritized, could we get done any faster?	<ul style="list-style-type: none"> ● Stage hands ● Critic
Managing extra-meeting activities	Messages exchanged between a meeting attendee and someone outside the meeting on a topic unrelated to the meeting	Are you playing volleyball tonight?	<ul style="list-style-type: none"> ● Disinterested bystander

throughout the day, including one group chat window, even during meetings (unless requested to log off IM by the meeting organizer). Similarly, at PharmaCo, two participants described themselves as disinterested in invisible whispering, saying they perceived it to be "too much multi-tasking," while one of their peers described it as "necessary" for managing her responsibilities.

While the reasons for using IM during meetings and the practices reported were quite similar in both organizations, the prevalence of invisible whispering also differed across the two organizations studied. Though we do not have extensive information on the group decision and negotiation cultures of the two organizations, interviewee comments suggested that invisible whispering was a more taken-for-granted practice at GlobalNet than at PharmaCo. For instance, several GlobalNet interviewees reported that IM use during meetings was so common that organizers often included instructions for IM use in the meeting announcement or at the start of the meeting:

The conference host will sometimes request that participants use the chat feature of Web Ex [a Web conferencing tool] rather than AIM to communicate with him or her . . . Occasionally, a meeting host will ask meeting participants to refrain from using IM altogether . . .

At PharmaCo, interviewees indicated that invisible whispering was less commonplace:

Most face-to-face meetings do not have laptops but occasionally when we bring laptops into face-to-face meetings, SameTime [IM] is used.

Another PharmaCo interviewee's comments suggested that IM during meetings became tolerated largely as a less-disruptive way to respond to pressing extra-meeting demands:

My project team is high visibility . . . a very important project within the company, so people understand when I use instant messenger . . . People understand the need to take pager messages or phone calls when they're in face-to-face meetings, and instant messenger is less disruptive than these two, so it is understood that instant messenger is OK.

Three differences in the groups studied could account, at least in part, for the differences in the prevalence of invisible whispering. First, GlobalNet participants worked in geographically-distributed teams, while the PharmaCo members we studied were

co-located, except during the auditors' short-term assignments at remote locations. As a result, the majority of GlobalNet meetings occurred via telephone conference calls, making the use of IM less apparent, while the majority of PharmaCo meetings were face-to-face. In addition, the use of laptops and handheld devices was less commonplace at PharmaCo, making the tools for engaging in invisible whispering during face-to-face meetings less readily available. Finally, reports of IM use for "gossiping" were significantly higher at PharmaCo than at GlobalNet, where most members were critical of overtly "social" messages that had no work-related purpose. Consequently, use of IM at GlobalNet, if detected, would have been more likely to be interpreted as work-related, while detectable IM use in PharmaCo could be more apt to be seen as gossip unless the participant were known to be on a high-pressure time-sensitive project.

Discussion

In our preceding analysis, Goffman's (1959, 1974/1986) dramaturgical framing provided a vocabulary and lens for identifying and describing how the use of IM in meetings, a practice we call *invisible whispering*, alters both the socio-spatial and the temporal boundaries of meetings and, consequently, the social and temporal structure of group decision making and negotiation. In traditional meetings, backstage conversations and activity typically occur both before and after the front stage activity that is the meeting itself. Prior to the meeting, invitees and their associates ideally gather information in preparation for the topics on the agenda, strategize about how to handle potential challenges, and prioritize key points in the event that they are pressed for time. During the meeting itself, participants enact their strategies through information-sharing (and withholding), discussion, negotiation, and decision-making. After the meeting, subgroups of participants gather, whether formally or informally, to reflect on, analyze, and critique the meeting's content and process, possibly addressing issues left unresolved during the meeting. To the extent that backstage activity occurs concurrently with the meeting, it would typically be conducted by people outside the meeting, such as a group compiling data to be delivered to the meeting at a particular time.

Our data indicate that in contrast to traditional meetings, or even technology-mediated meetings occurring via a single, shared channel (i.e., web-conferencing or telephone-conference), the use of IM enables meeting attendees to participate simultaneously – and undetected – in front stage *and* backstage interactions and in multiple backstage interactions. While study participants seemed to perceive invisible whispering as contributing to their individual and collective productivity, prior research suggests that the consequences of altering the temporal structure of front stage and backstage interactions may be more complex.

Our sample reported using instant messaging in a wide variety of meeting types, including candidate interviews, vendor pitches, project team meetings, and new proposal pitches to senior executives. In these meetings, decisions were being made regarding hiring personnel, contracting with vendors, coordinating project team activities, and investing (or not) in new or continuing initiatives. At the same time these decisions were being made, participants reported engaging in invisible whispering with other meeting attendees as well as people outside the meeting on a wide range of topics.

We identified six sub-genres of invisible whispering conversations: directing the meeting, providing focal task support, seeking clarification, providing social support, participating in a parallel subgroup meeting, and managing extra-meeting activities. Three of these conversation types focused on the content of the focal meeting, one on the interpersonal dynamics within the focal meeting, and two on topics either peripherally-related or unrelated to the meeting. Yankelovich et al. (2005) have suggested that “backchannel communication” related to the meeting improves meeting efficiency while unrelated conversations distract members, eroding efficiency. We draw on existing research to challenge that assertion and to consider the impacts of invisible whispering on meeting effectiveness and group dynamics as well as efficiency.

Invisible Whispering and Individual Attention

Many of the tools and strategies developed over the past 50 years to improve meeting effectiveness have been attempts to improve the collective focus of

attendees’ attention. Facilitative techniques to limit tangential conversation and the use of audio-visual displays to provide a common focal point (Munter, 2005) have all intended to improve meeting efficiency and effectiveness by shepherding meeting attendees’ attention toward a common focus. Contrary to this conventional wisdom, invisible whispering requires participants to divert their attention away from the main meeting to compose messages or read incoming ones and decide whether to respond.

At first glance, it might seem, consistent with Yankelovich et al.’s (2005) assertion, that conversations to “direct the meeting,” “provide focal task support,” and “seek clarification” reflect engagement with the meeting that might actually reinforce meeting attendees’ attention, while conversations to “provide social support,” “engage in parallel subgroup meetings,” and “manage extra-meeting activities” involve a topical diversion from the main meeting, detracting attendees’ attention. All six types of invisible whispering conversations, however, are also examples of multi-communicating, a special case of multi-tasking where conversation participants engage in more than one conversation simultaneously (Cameron, 2006; Reinsch et al., 2005).

The psychological literature on multi-tasking and cognitive load (Carpenter et al., 2000; Rubinstein et al., 2001) and prior studies of ICT use (Dennis, 1996; Grise and Gallupe, 1999/2000; Heninger et al., 2006; Schultze, and Vandenbosch, 1998) have repeatedly demonstrated that humans have a limited ability to attend simultaneously to multiple information sources. Applying this general principle to the specific case of invisible whispering, it seems reasonable to anticipate that invisible whispering participants may miss important information in the main meeting, may misinterpret a hastily-read IM, or may respond inappropriately to an IM message.³ In addition, multi-tasking studies (Carpenter et al., 2000; Rubinstein et al., 2001) have shown that people experience cognitive and functional delays when switching between tasks, suggesting that a participant’s attention may be diverted from the focal meeting for longer than the actual time spent reading and writing messages.

³ Several study participants mentioned “embarrassing” IM experiences including having confused IM conversation windows and directing comments to the wrong conversation partners.

Multi-communicating researchers have theorized that the performance erosions observed in multi-tasking studies would be even more pronounced in multi-communicating scenarios (Cameron, 2006; Reinsch et al., 2005) because even single conversations are cognitively complex due to the simultaneous management of task information and relational dynamics. A recent empirical study of multi-communicating outside the meeting context has supported that theory (Cameron, 2006).

One question for future research would be to determine whether the split attention required by IM poses a real problem in organizational environments in contrast to the laboratory settings that characterize much of the research in this area. While invisible whispering, particularly that devoted to managing extra-meeting activities, may impair performance in the short run by diverting attention, it may actually improve overall performance by increasing the efficiency and/or effectiveness of the tasks that are the subject of the invisible whispering. In addition, in practice not all aspects of all meetings require all attendees' undivided attention. So participants may be engaging in invisible whispering only when their attention is not required by the focal meeting.

Invisible Whispering and Group Decision-Making

Consider the group job interview described earlier, one example of a group decision process. Participants reported that they found the process very efficient because they were able to complete their decision process during the interview using back stage conversations to exchange information and impressions, eliminating the need for a follow-up meeting. It is unclear, however, whether they made a good decision. Does invisible whispering reduce group-think or encourage a rush to judgment?

Without invisible whispering, the front and back stage portions of the interview process occur in sequence: planning in back stage, interviewing on front stage, discussing and deciding on back stage. During the interview itself, each interviewer is engaged only in front stage interaction. Although forming impressions of the job candidate, he or she keeps these to him or herself until after the interview.

Then, once backstage, the interviewers exchange their respective impressions, a process that may occur in a face-to-face meeting after the interview or via a combination of telephone calls and emails scattered over several days. Regardless of the format, the process consists of individual impression-formation followed by information exchange leading to a collective decision.

In contrast, with IM, the front stage and backstage interactions occur simultaneously. As the interviewee responds to questions, interviewers share their impressions with one another: "She doesn't understand X!"; "She seems really good at Y." This temporal compression of front stage and backstage interactions appears to also compress the cognitive subprocesses of decision-making. Information-gathering, information sharing, negotiation, and decision convergence are occurring near-simultaneously. Prior research suggests that this temporal compression of the decision-making process could either positively or negatively impact the decision quality.

Discussion participants are likely to share more observations the closer in time the discussion occurs to the interview (Diehl and Stroebe, 1987, 1991). When participants are able to comment on a topic immediately, more ideas and comments are likely to be presented. Making participants wait to share comments, even when ample time is provided at a later time, significantly reduces the chance that those thoughts will be presented (Diehl and Stroebe, 1987, 1991). Thus invisible whispering may have the potential to reduce group-think by inducing more diverse comments to be made back stage while the main event is occurring on the front stage, rather than requiring such discussion to occur at a later time.

However, combining the information-gathering and impression-sharing stages may hinder the number and diversity of observations and perspectives exchanged. Numerous studies have shown that groups tend to over-focus on the common information known to all members and fail to share the information and insights unique to one individual (or small minority) (Stasser and Titus, 1985). In addition, when bits of unique information are shared, there is a general tendency to fail to hear, understand, and integrate them (Dennis, 1996; Kerr and Tindale, 2004; Larson et al., 1994; Stasser and Titus, 1985; Winquist and Larson, 1998). The laboratory simulation of this situation is called

the “hidden profile” scenario.⁴ Failure to disclose and attend to hidden profile information typically results in poorer quality decisions (Dennis, 1996; Stasser and Titus, 1985).

“Information-sharing” studies identify factors that influence whether group members share and are receptive to these unique pieces of information. Many of these factors are affected by invisible whispering. One factor is the structuring of the decision process itself. Current research indicates, however, that temporally segmenting the process into at least two steps, information gathering followed by “integration and decision” increases the likelihood that all relevant information will be surfaced and used (Brodbeck et al., 2002; Dennis et al., 2006; Kerr and Tindale, 2004). Segmenting the process into steps also allows time for individual preference formation. Though decision-makers are often biased in favor of their respective pre-discussion preferences (Kelly and Karau, 1999), pre-discussion differences of opinion can also promote information-sharing (Brodbeck et al., 2002) during the discussion phase. Taken together, the research suggests that temporally compressing the decision phases, as tends to occur when invisible whispering is engaged in *unreflectively*, could hinder information-sharing and, thus promote a rush to judgment, hurting decision quality (Dennis et al., 2006).

Studies have also shown that the time allocated to the decision process influences the extent of information sharing. Having more time to reach consensus increases the likelihood that unshared information will surface (Kerr and Tindale, 2004). In contrast, time pressure increases the urgency for “closure” (Karau and Kelly, 1992; Kelly and Karau, 1999; Kruglanski and Webster, 1991, 1996), making participants less receptive to divergent or disconfirming perspectives (Kruglanski and Webster, 1991; Kerr and Tindale, 2004), though, ironically, more focused on the task (Karau and Kelly, 1992). Our data indicated that the perception that invisible whispering improves meeting and decision efficiency could increase social pressure for it to become the normative decision process for

seemingly “routine” decisions, but the studies cited here suggest that any efficiency gains may be offset by a loss of decision quality.

Finally, combining the information-gathering and impression-formation stages of the decision process may hinder decision quality through a process called “anchoring” (Rutledge, 1993). The expression of a strongly positive or strongly negative opinion early in the process could serve as a benchmark, or “anchor,” affecting others’ perceptions of the candidate (or whatever option might be on the table in another decision-making setting), thus influencing subsequent lines of inquiry. Withholding impressions until the information-gathering is complete helps to preserve the diverse perspectives in a group, thus fostering more comprehensive information-gathering. In addition, once a majority opinion forms, it becomes more difficult for minority opinions to be expressed or seriously considered when expressed (Dennis et al., 1997; Martink et al., 2002). These effects are typically more pronounced when the party expressing the initial opinion or majority view holds a one-up position, even in technology-mediated interactions (Mantovani, 1994; Weisband et al., 1995).

Whether invisible whispering does, in fact, enhance or impair information-sharing and, ultimately, decision quality, remains an empirical question. Does the back stage exchange of information foster a more multi-dimensional, and, therefore, potentially superior information-gathering process, or does anchoring occur, limiting the decision-makers’ queries and receptivity to disconfirming information? Do decision-makers experience “urgency for closure”? If so, does this experience result in the truncation of information-sharing or have real world actors in real world contexts developed strategies to compensate for this and other potential handicaps of IM-supported meetings?

Another issue for future research is the conditions under which the information sharing that occurs via invisible whispering alleviates or exacerbates information asymmetries, and expands or contracts the information-gathering process? For example, in a study comparing face-to-face and video-conference engineering design team meetings (Larsson et al., 2002), researchers found that the side conversations considered by the engineers to be normal in the face-to-face context, served constructive purposes and were sorely missed in the videoconference context where

⁴ The interview scenario, where all participants presumably have access to the same information, may not be typical of the “hidden profile” problem, but the participants’ differing expertise, age, and gender would be expected to result in unique perspectives on the same information.

participants (apparently without access to IM) were constrained to using only the front stage medium. It would be useful to identify the characteristics of the problem, occupational norms, or other contextual factors in that scenario that promote constructive sidebar conversations and to determine if the sidebar conversations remained predominantly constructive when conducted via IM rather than in the socially-monitored space of a face-to-face meeting.

Invisible Whispering and Group Dynamics

Finally, prior research shows that when ICT is used to support meetings, there is an increase in overall participation and equality of participation in terms of the raw quantitative number of comments, both in *ad hoc* groups studied in laboratory experiments and in organizational groups in the field (e.g., Fjermestad and Hiltz, 1999; Krcmar et al., 1994; Majchrzak et al., 2000). While more equal *participation* may be important, it is the improved performance from the more *participative* processes that is often the ultimate goal (Wagner, 1994). Participative processes are those in which "influence is shared among individuals who are otherwise hierarchical unequals" (Wagner, 1994, p. 312, emphasis added). In participative processes, lower ranking participants influence *outcomes*, not just have more opportunity to contribute. One might argue that more equal participation should lead to more participative processes and outcome. However, empirical evidence shows that the increased participation and equality of participation from ICT use does not always – or often – result in more equal influence or different outcomes, particularly in settings where power is important (e.g., Hiltz and Turoff, 1993; Niederman and Bryson, 1998; Parent and Gallupe, 2001; Weisband et al., 1995; Zack and McKenney, 1995). Our research shows that such an increase in participativeness is possible with invisible whispering, such as when virtual ventriloquism occurred and the lower ranking participants had a direct influence on the behavior of superiors.

In addition to decision-making, the use of instant messaging to provide behind-the-scenes task and social support suggests that invisible whispering would also affect the interpersonal dynamics within the

group. While their models of group performance differ somewhat, both Hackman (1975) and McGrath (1984) identify the quality of interpersonal interactions within the group as a factor both affecting and reflecting group performance. Subsequently, Druskat and Wolff (2001) have demonstrated a direct link between "group emotional intelligence," the ability of a group to discern and respond appropriately to one another's emotional needs, and task performance. Our data indicate that the task and social support provided via IM were intended to provide assistance, comfort, and encouragement and that recipients appreciated receiving these messages, suggesting that invisible whispering could contribute to feelings of trust and belonging that, in turn, enhance group cohesion and task performance (Kramer, 1999). In addition, participants indicated that many of these supportive contributions would not have occurred without access to IM, which allowed them to send the message in the moment.

The possibility that invisible whispering could enhance group dynamics suggests the question, could it also inhibit positive group dynamics or erode cohesion and goodwill? Due to social desirability concerns (Podsakoff and Organ, 1986), study participants were unlikely to report sending negative instant messages, but we would expect to have heard if anyone we interviewed had *received* criticism or reprimands via invisible whispering, and we did not. Participants did acknowledge, however, using IM to criticize and gossip about one another to other meeting attendees during the meeting. The extent to which this occurred and to which participants were aware of it occurring could be expected to erode feelings of trust and belonging, thus eroding group cohesion.

Other Implications for Research and Practice

The questions we have raised and implications we have posited here represent the beginning of a conversation we hope will be continued by others' studies as well as our own. In order to develop more generalizable theory, it will be necessary to study multiple meeting and decision types in multiple organizations to determine the similarities and differences in the

role and consequences of invisible whispering across them. Is the taxonomy of conversation types offered in this paper complete? What is the actual volume of invisible whispering occurring in different decision settings? What proportion of these IM conversations focus on the decision at hand versus tangential, parallel, or unrelated topics? What strategies have invisible whispering participants developed to manage their attention? Ethnographic studies involving observation and *in situ* interviewing could be useful in addressing these questions coupled with post-meeting recall checks of key decision processes as a quasi-objective measure of whether participation in invisible whispering hindered comprehension and retention of meeting content.

It would also be interesting to analyze whatever data is collected for generational differences. There has been extensive speculation that “digital natives,” younger people who have grown up using continually-evolving suites of multi-media tools (Prensky, 2001a; Naughton, 2006; Tapscott, 1998), may have developed neural pathways that enable them to process more information streams simultaneously or at least in more rapid succession (Tapscott, 1998; Prensky, 2001b) than their “digital immigrant” coworkers, people currently over the age of 30 who learned digital as a second language (Prensky, 2001a).

Conclusion

In this chapter, we reported on the use of instant messaging (IM) to participate in “invisible whispering” during meetings. We distinguished six types of invisible whispering conversations and employed Goffman’s theatrical metaphor as a lens and vocabulary for identifying and describing how these practices restructured the socio-spatial and temporal boundaries of meeting interaction. We considered the implications of these boundary shifts to suggest how meeting processes and outcomes might be both enhanced and impaired. We believe that invisible whispering is an important and increasingly prevalent workplace phenomenon with the potential to affect group efficiency, effectiveness, and cohesion that will become only more important to both researchers and practitioners as workplace IM use grows.

Appendix: Initial Protocol for Semi-structured Interviews at GlobalNet

I. Introduction

- A. Purpose of study
- B. Confidentiality
- C. Any questions of researchers before beginning?

II. Questions [in approximate order posed but varied order and added additional prompts in response to participants’ responses]

- About how long have you been using IM?
- How were you introduced to IM?
- About how many IM conversations do you participate in each day?
- Would you consider yourself a “heavy” user of IM or a “light” user compared to your coworkers? [asked for elaboration of own practices and perceptions of coworkers]
- With whom do you communicate via IM?
- Would you please open the IM application now and show us how you usually use it throughout a typical day? [prompts about logging on, contents of buddy list, whether keep open or minimize, use of various settings to control availability, etc.]
- Thinking over the past week, can you give us examples of IM messages you have sent and received?
 - Please describe as much of the exchange as you can remember [Prompts about how initiate an IM conversation; length of messages; duration of conversation; use of abbreviations versus complete sentences; closings]
- Thinking over the same period of time, can you describe conversations or messages you would not have via IM? Why not?
 - [This question typically led into a “media choice” discussion comparing IM, email, telephone, and face-to-face.]
 - Direct prompts for the benefits and limitations of each media if not offered.
- How quickly are you expected to respond when you receive an instant message?

- Phone call?
- Email?
- If it takes longer than "X" to receive a response, what is your interpretation?...Is that how you assume others interpret any delays in receiving responses from you?
- What else should we be asking to better understand how you and your coworkers are using IM and its benefits and/or problems?

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