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Bitching, Bouncing and Brawling - How Backchannels Brought Colour to Conference Calls

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Abstract

This paper addresses the research question: How do digital backchannels, mediated by Real-Time Communications, facilitate the progress of conference calls? It is argued that whilst the fields of Distributed Work and Computer Supported Collaborative Work have been studied in depth, research into Real-Time Communications (RTC) and Instant Messaging (IM) is at an early stage. There is a paucity of research into the use of these technologies in distributed settings within organisations, especially from a perspective of generating social cohesion within teams. Furthermore, there is no known research into the use of instant messaging to mediate "hidden" interactions between individuals, through digital backchannels, within conference calls. Qualitative empirical evidence is obtained from two case studies of teams using an established corporate RTC product. Goffman's Interaction Order (1983) is presented a suitable lens through which to interpret this mediated form of interaction. Empirical evidence points to concurrent working and use of digital backchannels during meetings and conference calls. Dramaturgy (Goffman 1959) is used to identify and analyse three interaction styles of "bitching", "bouncing" and "brawling". It is found that interactions over digital backchannels fulfil criteria of Interaction Ritual (Goffman 1967) and may contribute to the creation of social cohesion.

Keywords: Digital Backchannels, Real-Time Communication, Instant Messaging, Distributed Teams, Interaction Order, Social Cohesion

1   INTRODUCTION

In their research report (2008) on a Delphi study of Real-Time Communications (RTC), Frößler et al. described it as an emergent technology, which has recently come to the attention of academics. RTC represents a group of products originating from the convergence of the telecommunications and groupware markets. It consists of two main components, presence, or availability status, and unified communications (UC). Presence provides contextual information regarding the availability status of group members for engaging in communication. By indicating their availability for communication and their preferred means of being reached, individuals are able to signal when they can be engaged in communication. UC unites access to communication tools such as voice, instant messaging (IM) and e-mail in one application. As a result, UC facilitates the management and coordination of a user's communication. To date there has been little academic research into RTC (Frößler et al. 2007) and its uses.

Companies are also adopting flexible modes of working, where teams are geographically distributed across sites. Many users of RTC form part of distributed teams involved in dispersed communications activities (Olsen et al. 2000) and are impacted by strains that such an environment might impose (Hinds et al. 2005). A common genre of communication and coordination employed by these individuals is the conference call. It has been noted (Olsen et al. 2000) that such forms of interaction are limited in context, interpersonal signals and cues when compared with face to face meetings. This may impact upon interaction and cohesion amongst teams.

RTC tools allow concurrent communication channels to be set up, using IM, during an instance of voice interaction. These secondary, private and unofficial channels of communication between two or more parties are known as Digital Backchannels and are invisible to the wider group taking part in the primary interaction (Cogdill et al. 2001). The use of backchannels may occur, for example, in the scenario of two teams on a conference call. One team may use IM to surreptitiously debate a point made by the other team, such that they can respond in a coordinated and effective manner. It is of interest to understand how conference call participants find backchannels useful, to see how backchannels may add context within calls and how they may create cohesion within teams. This paper reports on the use of backchannels occurring within audio conference calls, within two companies using an established corporate RTC product.

Whilst there has been little research into the use of RTC in the organizational sphere, there have been studies of IM. This research is mainly concerned with increasing user adoption (e.g. Aducci 2008) or on local practices and user adoption (e.g. Cameron et al. 2005). Some papers (e.g. Kellogg et al. 2006) mention the use of IM mediated backchannels within the context of conference calls, but without providing examples or theoretical understanding of what is occurring. No research was found regarding the use of RTC or IM within dispersed teams and the subsequent development or maintenance of cohesion. There are few papers covering IM mediated backchannels in other contexts. Cogdill et al. (2001) cover the use of backchannels within Multi User Domains (MUDs), but do not describe the understanding or theory of use. McCarthy et al. (2005) investigate the experimental use of IM mediated backchannels amongst attendees during conference presentations. The paper categorises use, but does not attempt to describe how the taxonomy was derived. Their use of backchannels varies from those encountered in this research. In their setting, backchannels were visible and open to all, rather than being hidden. The authors conclude that "a number of issues warrant further study, such as the nature of the social bonding that takes place in collocated verses distributed groups".

Within the fields of distributed work and computer supported collaborative work, there is coverage of the need for cohesion within distributed teams for work to take place effectively. Olsen et al. (2000), describe situations when distributed work can be effective. One factor that they describe is common ground, which is the need for teams to be able to establish a shared identity, level of context and trust before they are able to engage in successful collaboration at a distance. This is reflected by Hinds et al.

(2005), who indicate that shared identity, context and spontaneous communication can have a moderating effect on conflict arising within geographically distributed teams. Cohesion that has been developed or maintained by mediated interaction is covered by a number of scholars. Licoppe (2004) posits that frequent mediated and co-present interaction between groups is interwoven and increases cohesion. Ling (2008) examines how mobile telephony affects interactions and suggests its use strengthens social ties within the close circles of frequently called contacts.

1.1 Aims and Objectives

The objectives of the research, described within this paper are threefold. First, it aims to assess the practicability of the applying Goffman's theories of Interaction Order to understand interactions between employees mediated by RTC during and within meetings. Second, it assesses whether the research method, is sufficient to answer the research question. Last, it ascertains whether knowledge of how RTC is used within organizations is advanced, and whether this is of practical benefit.

2 METHOD

The empirical data used in this research, and the method through which it was collected, was informed by a number of sub questions: How do employees communicate? What forms of communication do they use? In what working contexts do they communicate? And what ends do they achieve through communication? The unit of analysis that was applied in the research is that of "situated instances of interaction".

The epistemological orientation of this research is that human interactions can have different meanings for different human subjects, as well as for the researcher investigating them (Lee 1994). There may be an element of subjectivity in individuals' opinions of meaning. In addition these meanings are inter-subjective as they are socially constructed and agreed amongst individuals within a team or organization, as well as between subjects and researcher. This research is broadly based on social constructivism and interpretive epistemology. An interpretive understanding, at a micro sociological level, is applied as to how interviewees understand their interaction using backchannels.

Qualitative interviews were carried out at two companies to form two case studies. The interview questions concerned individuals': work style and practices; use of communications; use of presence; process of contacting colleagues; tendency to switch between communications methods. The first case study considers AppsCo, an established provider of business software applications. The team at AppsCo were concerned with product management and marketing of corporate office solutions. The second case study considers TelCo, an established provider of telecommunications services to corporations. The team at TelCo were concerned with propositions management of corporate mobile solutions. Ten interviews were undertaken, six at AppsCo and four at TelCo. The interviews were typically ninety minutes long. Approximately 750 minutes of recordings, covering ten interviews, were transcribed into 280 pages of notes.

A first stage of coding "pre-processed" the corpus of data, to break it down into a set of situations of mediated interactions, according to the unit of analysis. A broad set of coding categories was used in order to do this. Category groupings included: communications behaviours; forms of communication; working contexts within which communication occurred; purposes of instances of communications. A second stage of coding assisted the analysis of interactions and meanings by labelling situations of interactions with concepts from Goffman's theories concerning Dramaturgy and then Interaction Ritual. The results of this second stage of analysis are considered in this paper.

3   THEORY

When considering theories relevant to the research question, it is useful to refer to Fiske's definition of communication (1990) as "social interaction through messages", involving symbols and codes. He assumes that these symbols and codes are transmitted to others and that communication is central to the existence of society. Fiske divides theories of communication into the process and the semiotic school. The semiotic school understands communication as how messages interact with people to produce meaning. Whereas the process school sees social interaction as the process by which one person relates to another, the semiotic school considers social interaction as that which constitutes the individual as a member of society. Similarly, the process school considers a message as that which is transmitted by the communication process, and the semiotic school views messages as the contribution of symbols, which through interaction with the receiver, to produce meanings (Fiske 1990).

The need to understand the meaning of interaction over backchannels, places the research question in the semiotic school of communications theory. The understanding of meaning is highly dependent upon the context of the backchannel interaction, as "The appreciation of the various details that define context is a subtle mental process and provides the key for interpreting a situation and the meaningful elements that pertain to it" (Kallinikos 2001). The interaction that takes places within the "backchannel" is highly contextualized as it takes its meaning from the primary interaction that is taking place, namely from within the conference call or meeting. In a similar way, any discussion or secondary interaction within the "backchannel" may provide context to subsequent primary interaction within the conference call or meeting.

The framework of Interaction Order (Goffman 1983), provides a seam of logic and method through which to understand the meaning of face to face, and possibly, mediated interaction. Goffman argued that people construct meaning for their social world through language and interaction. Interaction socially constructs meaning, and through this he believed that the sense of self was constructed as a product of this social meaning. Furthermore he thought that this meaning can be accessed through the careful analysis of interaction behaviours. Goffman's focus was on understanding meaning behind individual instances of face to face interaction, and his methodological approach was generally based on ethnographic observation of individuals and groups in their day to day settings. Goffman's unit of analysis was the situation within which interaction was taking place.

Ling (2008) applies Goffman's theories, through extensions of Goffman's Interaction Ritual (1967), to interpret the meanings mobile phone users ascribe to their mediated interaction. In this research, two aspects of Goffman's framework of Interaction Order (1983) and extensions of these theories (Collins 2005; Ling 2008) were used in order to provide a lens through which to interpret the meaning that subjects give to their interactions through backchannels within the context of the conference calls. In addition, Goffman's theories give clues as to how these mediated backchannel interactions may contribute to a sense of cohesion amongst distributed teams.

3.1   Dramaturgy and its Application

Dramaturgy, which was put forward in Goffman's book "Presentation of Self in Everyday Life" (1959), is the first theory that was applied. Dramaturgy is an approach to interpreting how the self manages impressions and what is conveyed based on interactions within groups of people. He used the metaphor of "life as theatre" as a lens through which to analyse interaction within life situations. He uses this lens in order to understand the tactics and techniques by which people use the ritual of theatre to construct the impressions that they give and that individuals take. The main premise in this analysis is that human interactions are dependent on contextual factors such as time, place and audience. The impressions that one human presents to another is based on cultural norms, values and expectations that are contextualized. Goffman uses the theatrical metaphor to provide terminology to describe how individuals go about organizing their performances. Goffman assumes that interactions are social

performances in which individuals are concerned with giving off and maintaining certain desired impressions of themselves to others with the aim of achieving their goals of interaction. The aim of this act of self presentation is to gain acceptance from other people ("the audience") through manipulation. If "the actor" succeeds then audiences perceive "the actor" as she would like.

There are a number of theatrical terms that Goffman introduces to illustrate the performance of impressions management. Goffman introduces the concepts of "front stage", where the self is visible to "the audience" and "back stage", where the self is invisible. When "the actor" is present on the "front stage" she is visible to "the audience" and must manage her impressions or "role" as part of the "performance". Her demeanour and the way she behaves may well be quite different "back stage" to what it is "front stage". When she is "front stage" she is in role and her impressions management need to convey this. As in theatre "boundaries" are required in order to prevent or restrict the movement of "the audience" sitting "front stage" from getting access "back stage", in order that the performance remains credible. The ways through which hidden "back stage" interactions using backchannels, facilitate the progress of meetings can be examined using the language of Dramaturgy.

3.2   Interaction Ritual and its Application

The second theory taken from Goffman's Interaction Order (1983), is that of Interaction Ritual (1967), which analyses the rules of conduct that bring actors together. In Interaction Ritual (1967), Goffman builds upon the concepts of ritual, with origins in Durkheim's "Elementary Forms of Religious Life" (2008). Durkheim was concerned with the dynamics of ritualistic events at a macro level in order to study the societal transitions from one state to another (Ling 2008). The ritualistic events, that he studied, were special occasions, such as weddings, and typically took place in a religious setting rather than everyday life. Durkheim was of the opinion that the context of group interaction in rituals generated solidarity through shared symbolism, and that it is ritual and ritualistic events that bind society together (Ling 2008). Goffman applied Durkheim's concept of ritual to every day interactions, moving the ritual taken within the perspective of the macro to the micro. Goffman believed that there was a sharing of mood and mutual recognition of a situation in mundane rituals (Ling 2008). Building on Durkheim's ideas he posited that interaction ritual provides rules of conduct that provide cohesion and bind actors together (Ling 2008).

Collins (2005) develops Interaction Ritual further in an attempt to connect Goffman and Durkheim in order to link the micro perspective of day to day ritual to the macro perspective of the reinforcement and stability of social structure. Collins (2005, p.48) extends the work of Durkheim and Goffman to define ritual interaction as "*A mechanism of mutually focused emotion and attention producing a momentarily shared reality which thereby generates solidarity and symbols of group membership.*" Through the perspective of Interaction Ritual Chains (2005) individuals focus on the same ritualistic object or action. By (re)enacting these interactions individuals practice deference and demeanour (Goffman 1967) and they develop a common mood. The repetition of micro interactions leads to the significance of artefacts (jargon, symbols or totems) being revitalized and they become charged with emotional intensity (Collins 2005; Ling 2008). Collins claims that the effervescence (Ling 2008) of these events creates social cohesion, as there is a shared sense of energy amongst the participants. Finally, Collins posits that this process allows a sense of solidarity or allegiance to form and that this in turn bolsters institutional stability (Ling 2008).

Ling (2008) develops Collins ideas in order that they can be applied to interaction within communities mediated by the mobile phone. The concern that Ling faces with when attempting to make this connection is that the theories of ritual interaction put forward by Durkheim, Goffman and Collins are based on co-located rather than mediated interaction. Ling circumvents this issue in order that the ritual interaction chain can occur. He claims that once a bond has been formed through co-present means, mediated interaction is as effective in generating the intense emotion that is needed to develop and maintain cohesion. He cites Licoppe (2004) who provides evidence to support these claims.

It is proposed to further extend Collins' work to the context of IM, using the same logic as Ling. Whilst the individuals interacting by IM may not be co-present they may have bonded as working colleagues on previous occasions. When participants interact over a backchannel they are focusing on the same set of rituals, namely the meeting and the purpose of the backchannel interaction. These ritualistic interactions in turn provide a common mood and a degree of emotional intensity by the fact that they feel the need to use a discrete backchannel. In turn the degree of shared energy caused by this interaction may be little different to that caused in the mobile mediated interactions that Ling observes, so that they may in turn lead to cohesion within in a distributed group. The lens of Dramaturgy is used to analyse the empirical data before applying the lens of Ritual Interaction. The insights Dramaturgy provide into the use of the backchannel bring out the drama in IM mediated interaction, and expose the shared energy which is needed for the generation of cohesion in the context of Ritual Interaction.

4 RESULTS

A large quantity of generalised communications usage data was obtained from interviews. Part of this data concerns the use of digital backchannels in the context of meetings and conference calls, and is considered in this paper. The remaining data concerning other form of communications usage and behaviour is considered elsewhere.

Backchannels in the context of conference calls are of interest as participants are physically remote from each other and the possibility of the use of physical notes, gestures and signals to communicate discretely is impossible. Furthermore interactions over the backchannel may be richer and more sophisticated than what can be achieved using signals and gestures. A selection of examples of backchannel usage that arose during interviews are illustrated in table 1.

Table 1 - Example quotations illustrating backchannels mapped to behaviour	
1. "And the XXXX guy was speaking about something and the XXXX will come on "this guy's bullshitting" …. it's like who's IM-ing who about what. Got to watch what I say ..."	Bitching
2. "So our group manager, once a year she goes away to (headquarters for a review) … she can't possibly remember everything. And you know the second that she's in that meeting and she's on because all the IMs start popping up … it'll either be her or a person she sits next to … she obviously gets asked a question, and she'll say "right you want to know what we're doing for Product X next year and where we see the biggest opportunities"? Then the answer comes back, apparently the same happens with the big execs on the other end. Our side will say "yes, well we think - we're only four percent market share". And someone will go shwe-shwe in the big guy's ear; you know whispers in his ear. And then they say "actually I know it's 10 percent"."	Bouncing
3. "It's a great tool for asking questions amongst your little community. Having everyone in context, you can write "I didn't understand that, did anyone else?, should we press for this, should we do this". It allows you to then have … a much stronger positioning meeting because you can ask the questions you won't normally do in a face-to-face like "you ask him, if I'll ask this". Get that pincer attack on closing down on the negotiation points."	Brawling
4. "You could argue "is there a moral ethical dilemma about that. No, not really because … you would've prepared for that meeting anyway, you would've assigned the roles of who's going to be the negotiator. All you're doing at this point is cementing and tackling the stuff that comes off the left field that you might not have thought about."	Brawling
5. "we've been discussing recently with a supplier about … various conditions that XXX enforces as part of it's procurement and increasing the cash flow is becoming a major issue for companies. And XXX is seeking … to extend its payment terms too ….. in this instance because of our systems we've haven't paid this particular supplier on a number of occasions and we've actually made it onto their bad debtors list. The procurement guy wasn't aware that this was the situation when were trying to renegotiate the contract. So I logged on, quickly got in touch with him and said "this is the situation" and that guy had to change his tack slightly and he didn't push quite so hard to get it."	Brawling

Three categories of backchannel use within the context of Conference Calls were identified. They have been given the descriptive titles "bitching", "bouncing" and "brawling". "Bitching" describes

interactions which do not contribute to the progression or success of the meeting. These interactions are typically much more "social" in nature and are typically used to "let off steam" in the form of sharing frustrations and the sharing of jokes. "Bouncing" describes interactions between two or more individuals in a conference call or meeting and two or more individuals outside of the meeting. Unlike other examples of IM mediated concurrent work that may occur during meetings, these IM exchanges are directly related to the progression and maintaining the success of the meeting. The principle use of "bouncing" involves the pulling in of information from outside, into the conference call or meeting, in order to facilitate "its momentum" and to prevent the meeting from "stagnating". "Brawling" describes interactions which seek to clarify a point or to strategise over an issue occurring in the meeting, so that one or more of the backchannel party can then reengage in the conference call or meeting and tackle the issue effectively. These categories are listed against the examples of backchannel usage in table 1.

These interactions are now analysed in depth, firstly through the lens of dramaturgy and then through the lens of interaction ritual. They are illustrated with example "thick descriptions".

4.1   Conference Calls as a Performance

In the context of Dramaturgy, conference calls and meetings takes place within the context of "front stage" which is the meeting room for face to face meetings, or virtual space for conference calls. Without a backchannel, there is little opportunity for "back stage" interactions, so that all of the actions by the "actors" can be seen or heard by the "audience". However, with the addition of laptops enabling IM, it becomes possible for the actors to engage in "back stage" interactions over a backchannel, whilst the meeting or "performance" is unfolding "front stage" at the same time. The "back stage" is invisible to the "audience" and "actors" can interact without their behaviour being seen or heard by the "audience", e.g. *You can have conversations where you couldn't have physical conversations at the same time*". The descriptions of backchannel usage that were identified from the interviews were analysed by applying dramaturgical concepts. Table 2 illustrates dramaturgical concepts occurring in the example quotations of table 1.

Table 2.Chain of Evidence: Dramaturgical Concepts occuring in Example Quotations									
	Front stage (meeting)	**Back stage** (backchannel)	**Actors** (backchannel participants)	**Audience** (individuals external to backchannel)	**Boundary** (dividing subjects and objects)	**Performance** (front presented by actors)	**Asides** (comments between actors)	**Prompting** (useful provided over backchannel)	**Improvisation** (actions not pre arranged)
Q1	■	■	■	■	■	■	■		
Q2	■	■	■	■	■	■		■	
Q3	■	■	■	■	■	■			■
Q4	■	■	■	■	■	■			■
Q5	■	■	■	■	■	■			

"Bitching" interactions are typically "social" and joking in nature, e.g. Quotation 1. This comment indicates the necessity to guard "boundaries" between "front stage" and "back stage" and to prevent the "audience" gaining access, otherwise the "performance" will no longer be credible. "Bitching" as a form of "back stage" interaction resembles an "actor" complaining that the "audience" is particularly flat that evening. These "asides" distinguish "Bitching" from the other two categories. The "audience" are not intended to see any of these "back stage" backchannel interactions; otherwise their impression of the "performance" might be ruined.

The principle form of "bouncing" involves the pulling in of information from outside, in order to keep up the momentum of the conference call or meeting, e.g. Quotation 2. The process of "bouncing" is similar to the "prompting" of actors when they forget their "lines" which is occasionally required to keep up the momentum of a "performance". However, the level of "prompting" must be kept as subtle as possible, as in a play, in order to maintain the "appearance" and "front" of the "actor", so that their

"role" remains credible and convincing. Ideally the "audience" won't be aware of "prompting" and the backchannel is relative subtle for this purpose, as it remains "back stage" out of sight. It is "prompting" that makes "bouncing" unique amongst the categories.

There were examples of individuals on conference calls using the backchannel to clarify points within their "team of actors" "back stage" before "brawling" "front stage". The advantage of being able to have these interactions "back stage" on the backchannel, whilst the "performance" or meeting is continuing "front stage", is that the "audience" remains oblivious as to these discussions. As a consequence the "actors" are able to coordinate and manage the "performance" without having to interrupt it. The ability for "actors" to be able to have these "back stage" dialogues enables sophisticated strategies to be developed quickly and responsively to achieve the objectives of the meeting, e.g. Quotation 3. There was some debate as to the morality of strategising "back stage", but it was considered ethical, as teams would typically prepare and "rehearse" before meetings, and the backchannel is used for dealing with the unexpected, e.g. Quotation 4. In this last quotation, the interviewee raises an additional point of interest regarding to be able to react to unforeseen circumstances. The ability to be able to have a dialogue "back stage" is that it enables the actors to "improvise" better. It is "improvisation" that sets the category of "brawling" apart from the others. The ability, that backchannel provides, to allow people to be "front stage" and "back stage" at the same time, without interrupting the "performance" provides an ability to fine tune, or "direct", events whilst they are unfolding, e.g. Quotation 5.

4.2   Conference Calls as Ritual

There is logic in applying both the concepts of Dramaturgy and Ritual Interaction. First, they both form part of Goffman's Interaction Order (Goffman 1983). Second, the two perspectives are linked so that themes from Dramaturgy inform Interaction Ritual, in terms of the study of human interaction, its methodological and epistemological approach, and in terms of the concepts and vocabulary used. Last, the initial Dramaturgic analysis helps identify the shared energy that is created in parties interacting, which then feeds the sense of social cohesion resulting from Interaction Ritual.

For ritual interaction to take place, Collins (2005, p.48) states the following conditions must be in place: Two or more physically assembled people; Boundaries to outside; A common focus of attention through which participants are mutually aware of each others' focus of attention; Sharing of mood (including: Collective engrossment; Sense of emotional energy; Development and markers of shared relationship; Standards of morality (e.g. sense of rightness) associated with being part of the group and willingness to defend against transgressors). Ling (2008) develops Collins' ideas further in order that they can be applied to interaction mediated by the mobile phone. The first condition becomes: Two or more physically assembled people or people who are connected via mediated communication. Table 3 illustrates how all these conditions are matched within each example of backchannel usage. The paragraphs that follow describe how this comes about for each example.

Table 3. Chain of Evidence: Ritual Interaction Concepts occuring in Example Quotations							
	Two or more physically assembled people	Boundaries to outside	Common Focus of Attention	Sharing of Mood: Collective Engrossment	Sharing of Mood: Sense of Emotional Energy	Sharing of Mood: Development of Shared Relationship	Sharing of Mood: Standards of Morality
Q1							
Q2							
Q3							
Q4							
Q5							

Since "bitching" interactions are typically much more "social" and joking in nature, they may transform a tense energy within a meeting into energy which is more agreeable, e.g. Quotation 1. Applying Collins' framework to these interactions, it can be seen that "two or more people are connected via mediated communication" by the very fact that they are engaged in IM interaction. There are clearly "boundaries to outside" as there are other people within the primary context of the conference call / meeting, for whom the content of the "back stage" interaction is not intended. There is a "common focus of attention through which participants are mutually aware of each others' focus of attention", the act of "bitching" within the primary context of the conference call/meeting is the common focus, and the backchannel is the means through which the "actors" are mutually aware of each others' focus of attention. With regards to the final aspect of Collin's framework, "sharing of mood", there is a sense of "collective engrossment" and "emotional energy" through the fact that the act of "bitching" is transforming one form of emotional energy (e.g. frustration at being bored) to another (e.g. relief that someone else might be feeling the same way). It can be claimed that the conspiratorial nature of sharing a joke about how the meeting may develop or maintain "markers of shared relationship" and may indicate that there are "standards of morality (e.g. sense of rightness) associated with being part of the group and willingness to defend against transgressors".

The principle form of "bouncing" involves the pulling in of information from outside, into the conference call or meeting, e.g. Quotation 2. Once again, applying Collins' framework to these interactions, it can be seen that "two or more people are connected via mediated communication" by the very fact that they are engaged in IM interaction. There are clearly "boundaries to outside" as there are other people within the primary context of the conference call / meeting, for whom the "back stage" interaction is not intended. There is a "common focus of attention through which participants are mutually aware of each others' focus of attention", the act of "bouncing" within the primary context of the conference call/meeting is the common focus, and the backchannel is the means through which the "actors" are mutually aware of each others' focus of attention. With regards to the final aspect of Collin's framework, "sharing of mood", there is a sense of "collective engrossment" and "emotional energy" through the fact that the act of "bouncing" is urgent and emotionally charged in nature. It can be claimed that the hidden nature of sharing information and co-operating together may develop or maintain "markers of shared relationship" and may indicate that there are "standards of morality (e.g. sense of rightness) associated with being part of the group and willingness to defend against transgressors". The "actors" in these quotations are sharing information with their "audience" to defend their point of view, and there is a sense of "us and them".

Examples of "brawling" are reported for two observed purposes. Each has its own role in interaction ritual. The first is to enable a group to discuss strategies improvise solutions, "back stage" whilst being "front stage" at the same time, in order to cope with unforeseen circumstances on a conference call, e.g. Quotation 3. The second use of "brawling" is to influence, or "direct", the "performance" of another "actor" in order to maintain the success of the overall "performance" of the conference call. Again this is done "back stage" whilst being "front stage" at the same time, e.g. Quotation 5. Applying Collins' framework to these interactions for the last time, it can be seen that "two or more people are connected via mediated communication" by the fact that they are engaged in IM interaction. There are clearly "boundaries to outside" as there are other people within the primary context of the conference call / meeting, for whom the content of the "back stage" interaction is not intended. There is a "common focus of attention through which participants are mutually aware of each others' focus of attention", the act of "brawling" within the primary context of the conference call/meeting is the common focus, and the backchannel is the means through which the "actors" are mutually aware of each others' focus of attention. With regards to the final aspect of Collin's framework, "sharing of mood", there is a sense of "collective engrossment" and "emotional energy" through the fact that the act of "brawling" is inclusive of a group and requires their attention. In addition there is likely to be a common sense of charged energy as the "actors" plot to outwit their "audience". It can be claimed that plotting together may develop or maintain "markers of shared relationship" as those who are involved are very much part of the "in group" in contrast to the "out group" against who they are scheming. The act of brawling, intended to defend the interests of the "actors" against those of the "audience",

indicates that there are "standards of morality (e.g. sense of rightness) associated with being part of the group and willingness to defend against transgressors".

5   DISCUSSION

The framework of dramaturgy can be usefully applied to understanding and interpreting interactions over backchannels in the context of conference calls and meetings. It would also appear that the extensions of Interaction Ritual (Collins 2005; Ling 2008) can be used to understand interactions mediated via IM through backchannels, and that meaningful interpretations can be drawn from this analysis. A number of insights emerge from these analyses, which can be assessed, in terms of relevant findings, contributions and failings, against the objectives of this research.

5.1   Theoretical Findings, Contributions and Failings

The research had the objective of assessing the practicability of applying aspects Goffman's Interaction Order and derived theories to interpreting and understanding meanings attributed by users of IM mediated backchannels in the context of conference calls and meetings. To date there has been little research into use of RTC within organisations (Frößler & Klein 2007) and little research into the use of Digital Backchannels (Isaacs et al. 2002; Kellogg & Erickson 2006; Cogdill et al 2001; McCarthy & Boyd 2005). Application of Goffman's theories allow the meanings of Backchannels to be interpreted and understood. Dramaturgical concepts (Goffman 1959) provide a useful means of interpreting the interactions that occur through backchannels within the context of conference calls and meetings. Interaction Ritual (Goffman 1967) and extensions (Collins 2005; Ling 2008) were applied to the empirical data in order to ascertain whether these interactions were indeed ritualistic after Collin's and Ling's definitions. Interactions through backchannels fit Collin's criteria, adapted by Ling, satisfactorily, and these mediated interactions can be loosely termed Interaction Rituals. In this way, it can be claimed the theoretical objective is achieved, and that the study contributes to the literature. It demonstrates that Goffman's Interaction Order can be successfully applied to interpret interactions through IM mediated backchannels in the context of conference calls. However, the study had set out to claim that use of backchannels generates or maintains social cohesion within groups (through interaction ritual). Unfortunately, it cannot be claimed that this is the case. The reasons for this are twofold. First, for social cohesion to be generated and maintained by interaction ritual, the ritual needs to be repeated frequently (Ling 2008), a concern which is confirmed by Licoppe's research (2004) into "connected presence", which shows that it is frequent mediated interaction that helps maintain social bonds. Whilst it is apparent that the average day is quite literally "littered" by conference calls for some interviewees in this research, there is insufficient evidence that they engage in "bitching", "bouncing" and "brawling" frequently enough. This question was not asked, nor was the evidence volunteered. Second, for the same reason, interviewees did not mention the fact that they find interaction over the backchannel a socially cohesive act, either directly or indirectly. Nevertheless these practices fulfil the criteria of Interaction Ritual which consequently provides evidence that they may contribute social cohesion, especially in conjunction with other factors.

5.2   Methodological Findings, Contributions and Failings

This research had the objective of assessing whether the research method is sufficient to address the research question. The chosen research design was based on obtaining qualitative data from semi structured interviews from two organizations and to present them as two case studies. Sufficient empirical data was collected in order to address the research question regarding backchannels. However, there are shortcomings with the research design and method. The first concerns the fact that research in Goffman's tradition is based ethnographic observation, rather than case study interviews. Ling (2008), upon which this research is based, used ethnographic observation in order to obtain empirical data for his research into social cohesion, based on Interaction Ritual, generated from use of

mobile telephony. It is debatable whether an ethnographic study would have yielded sufficient data, given the short period of time that was available for field work. A second criticism is that whilst sufficient evidence was acquired to address most of the research question using Goffman's concepts, there was no independent evidence to back up the claim that Interaction Ritual within backchannels generates social cohesion amongst interviewees. Future research designs must be improved in order that a full contribution is provided.

5.3   Practical Findings, Contributions and Failings

The research had the practice objective of assessing whether the research advances knowledge of how RTC is used within organizations, and whether this is of practical benefit. The process of analysis identified the following four findings. Firstly, in the backdrop of meetings, IM mediated backchannels provides a group of individuals an environment where they can engage in sophisticated interaction, invisible to other meeting attendees. Secondly, backchannels provide a dynamic means for information to be invisibly brought into face to face meetings or conference calls from outside. Thirdly, backchannels allow real time coordination amongst groups within meetings, in a manner invisible to others, which allows them to improvise and react to unexpected events as they unfold. Lastly, mediated interaction through backchannels shows characteristics of Interaction Ritual, which generate an energy amongst those who participate, which may contribute to social cohesion within distributed teams. These findings may be of mixed benefits to organizations. On the one hand interviewees reported how backchannels were of benefit to the way they conducted conference calls. On the other they also reported how backchannels and other examples of concurrent working may be distracting in the context of conference calls and face to face meetings. Indeed some senior managers were introducing policies preventing the use of laptops in meetings, although this would be difficult to enforce in conference calls. Finally, the application of dramaturgy to mediated interactions such as IM interaction through backchannels provides an insightful means of understanding how employees are interacting and how technology is used. In this way this research has contributed to the body of literature within the domains of Distributed Work, CSCW and especially RTC and IM.

5.4   Potential for Future Research

Two areas for future research are immediately identifiable. One is to continue and improve research regarding the use of IM mediated backchannels, and the second is to extend analysis of mediated interactions to other contexts and communications technologies within the organizational sphere. With respect to further research into backchannel interactions mediated by IM, or other technologies, there is a need to correct the methodological failings of this current research. First, an ethnographic approach to collecting data would be more consistent with the methodological approach of Goffman. Second, more evidence is required in order to make claims regarding the creation or maintenance of social cohesion as a result of mediated interactions studied. Last, research into this phenomenon would be more complete if the enquiry extended beyond the act of interaction as agency and also investigated the institutional structural elements and the impact of artefacts, which mediate interaction.

6   CONCLUSION

This research contributes to the analysis of the use of digital backchannels in the context of conference calls and RTC in the areas of practice, methodology and theory.

In practice, it was observed that in the backdrop of meetings, IM mediated backchannels provides a group of individuals an environment where they can engage in sophisticated interaction, invisible to other meeting attendees. Secondly, backchannels provide a dynamic means for information to be invisibly brought into face to face meetings or conference calls from outside. Thirdly, backchannels allow real time coordination amongst groups within meetings, in a manner invisible to others, which

allows them to improvise and react to unexpected events as they unfold. Lastly, mediated interaction through backchannels shows characteristics of Interaction Ritual, which generate an energy amongst those who participate, which may contribute to social cohesion within distributed teams. These findings may be of mixed benefits to organizations. On the one hand interviewees reported how backchannels were of benefit to the way they conducted conference calls, but on the other they reported how it can cause distraction,

Whilst the research design provided sufficient empirical data upon which to analyse the use of backchannels and to identify evidence of social cohesion, it was based on case study interviews rather than on ethnographic observation. Changes to the research design, in order that data is collected through ethnographic observation, would make it more consistent with previous research (Goffman 1983; Ling 2008), upon which it is based.

The application of Goffman's Interaction Order and derived theories appear to be an innovative lens to interpret and understand meanings attributed by users of IM mediated backchannels in the context of conference calls and meetings. These practices fulfil the criteria of Interaction Ritual, and there is evidence that they may contribute to social cohesion within teams.

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