ORGANIZATIONAL EMAIL, BA AND SOCIAL CAPITAL

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Abstract

Email is widely used in twenty-first century organizations. Business relationships established and maintained in e-ba, are made possible both by the unique properties of the medium and by people's innovative use of the possibilities it offers. In the relationships between organizations that are the focus of this study, email functions as a mode by which participants, through their conversations, create a mental ba that to some extent transcends the constraints of time and physical space. This ba appears to be perceived by participants as a viable space in which to act as if they were in the same time and space. Knowledge Enabling Theory forms the wider context for the analysis, and Hyme's (1972) SPEAKING paradigm informs the qualitative analysis.

Keywords: email, conversations, organizations.

Email as Context in Organizational Knowledge Creation: A Transcending Dimension Of *Ba*

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Abstract

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1 Introduction

Ba as a space for organizational knowledge creation is derived from the Japanese idea of space that fosters emerging relationships (Nishida, 1921, 1970; Shimizu, 1995). It is described by Von Krogh, Nonaka & Ichijo (2000) as being either: physical, mental, virtual, or all three, and a vital component of the context for enabling organizational knowledge creation. Context is viewed by Hymes (1974, p.4) as 'both cognitive (what we know, embedded in our communicative competence) and social (the social and cultural components that combine to define communicative events).' Social capital, including such assets as trust, is created and leveraged through relationships and their behavioural embeddedness (Nahapiet & Goshal, 1998). One of the most common ways by which we enact organizational relationships is through conversation, and in organizations, many of these conversations (up to 80% in some organizations), take place via email. Von Krogh et al (2000, p.9), have identified conversations as the most important enabler of organizational knowledge creation. Although email is commonly used in association with other forms of communication, it is sometimes used almost exclusively as the medium by which to establish and maintain business relationships.

So, for many organizations it is a significant aspect of *ba* and in some, it can even be the primary *ba* in which business or organizational relationships take place.

This paper examines organizational conversations that take place by email, and email as a medium, in order to gain some insights into the nature of the *ba* created in the interaction between the two. It addresses the questions: Does the medium of email interact with email conversations to form a *ba* or context that facilitates knowledge enabling or knowledge creation? and if so how? Knowledge Enabling Theory forms the overall context for the study, and the qualitative analysis is informed by Hymes' (1972) ethnography of communication framework, applied using some of the terms and concepts from discourse analytic perspectives.

2 Literature Review

Nonaka and Takeuchi's (1995) Knowledge Creation Theory provides a detailed analysis and explanation of the processes involved in organizational knowledge creation, while Knowledge Enabling Theory provides a comprehensive examination of the conditions and activities necessary for organizations to operationalize Knowledge Creation Theory. In the table below it can be seen that the enabler most connected with relationships and care in the organization, "Manage Conversations', strongly affects all five knowledge creation steps. (Von Krogh et al, 2000, p.9).

Table 1. The Five Steps of Knowledge Creation and the Five Enablers

Knowledge Creation Steps →	Sharing Tacit Knowledge	Creating a Concept	Justifying a Concept	Building a Prototype	Cross- Levelling Knowledge
Knowledge					
Enablers					
\downarrow					
Instil a		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\checkmark\checkmark$
Knowledge					
Vision					
Manage	₩	√ √	√√	√√	√ √
Conversations					
Mobilize		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
Knowledge					
Activists					
Create the Right	$\sqrt{}$	$\sqrt{}$	$\sqrt{\lambda}$	$\sqrt{}$	$\checkmark\checkmark$
Context					
Globalize Local					$\checkmark\checkmark$
Knowledge					

Adapted from: Von Krogh, Nonaka & Ichijo (2000, p.9). In the table, one tick indicates a link between the enabler and that knowledge creation step, and two ticks indicate a strong link.

2.1 Conversations, Context and Ba

Conversations have been variously described as: powerhouses of innovation (Wenger, 1995); a mirror for participants; the cradle of social knowledge in any organization (Von Krogh et al, 2000); the predominant medium of interaction in the social world (Drew & Heritage, 1992) and the glue that holds organizations together (Maghalaes in Von Krogh, Roos & Klein, 1998). Yet little is known of just how context and conversations interact and impact on each other to develop and maintain a right context or ba, and thus foster organizational knowledge creation. Email conversations have received even less attention in this regard, than their face-to-face counterparts.

The focus of many studies on institutional discourse is on formal planned interactions such as courtrooms, (Atkinson & Drew, 1979; Maynard, 1984; Levi & Walker, 1990, cited in Drew & Heritage, 1992), doctor-patient relations (Fisher & Todd, 1983; Heath, 1986; Silverman, 1987, cited in Drew & Heritage, 1992).

For the purpose of this study, an 'email conversation' is defined as, a sequence of email interactions on the same topic, in the course of the day-to-day business of the organization. Other kinds of email communication, such as broadcast message, that are not intended to receive replies in a conversational sense, are not included in the analysis.

3 Social Capital and Intellectual Capital

Nahapiet and Goshal, (1998), note that knowledge is an asset whose value is expanded and improved with effective use, and that the effectiveness of that use depends to a large extent on the organization's social capital. Social capital is regarded by Bourdieu (1986), as residing in relationships, and Von Krogh et al (2000) note that social relationships promote the exchange and combination of knowledge, and the creation of intellectual capital.

Nahapiet and Goshal (1998) identify three dimensions of social capital: structural, cognitive and relational. They argue that the structural dimension of social capital influences the development of intellectual capital, through the ways it provides access to parties for the exchange of knowledge and participating in knowing activities. The relational dimension is important in the development of norms, the development trust and identity. The cognitive dimension provides shared representations, interpretations and systems of meaning. It includes shared language and shared codes. Each

dimension constitutes some aspect of the social structure and facilitates the actions of individuals within that structure.

Intellectual capital comprises social explicit knowledge and social tacit knowledge (Nahapiet & Goshal, 1998). Social explicit knowledge is a shared corpus of objectified knowledge and is often regarded as the most advanced form of knowledge (Boisot, 1995). Organizations commonly Invest in its development in order to share and leverage their distributed knowledge and intellect. Much less purposeful investment is focussed social tacit knowledge, despite the fact that a great deal of organizational knowledge exists in this form. Nahapiet and Goshal (1998) note that social tacit knowledge is less visible, embedded in the various forms of social and institutional practice, and may remain hidden from individual actors but be accessible and sustained through their interaction. Organizational email conversations are a form of social capital facilitated by a technical medium.

4 Method

The organization in which the study is located is a software solutions company based in Wellington, New Zealand. It employs just over 50 people, and has a client base comprising both small and large companies, in New Zealand and several other countries. The firm establishes and maintains over seventy percent of its business via the medium of email. The parties in some of these relationships are up to 10,000 miles apart and because they are unlikely ever to meet they must establish and maintain the relationships through mediums other than face-to-face. In practice this is achieved almost exclusively by email. Some relationships are even established via a person acting as a cyberspace go-between.

Access to the organization was negotiated through the CEO who was also the main participant. In the initial 90 minute interview the study was explained and information sheets and consent forms were provided for those agreeing to participate. Two 90 minute interviews were held with the main participant and further discussions took place by telephone, short face-to-face interviews and email.

People in this organization receive an average of 20 - 30 emails per day. The CEO receives the highest number and this can be up to 50 per day. Participants offered to let the researcher choose data from the email archive. Email is a sensitive area of

communication for many people, and the researcher made clear that whichever emails were offered would be acceptable, provided they met three criteria. These were that the emails were: interactions in the day-to-day business of the organization; a sequence of interactions in each email, dealing with one topic or issue; and provided voluntarily by participants.

Emails were provided in hard copy to avoid the risks associated with confidential data on electronic files. Names of participants, companies and products were changed before each email was individually keyed into the research computer system. All original emails were kept in a locked cabinet and will be destroyed after completion of the current study.

5 Analysis and Discussion

Knowledge Enabling Theory and Knowledge Creation Theory form the wider context for the study, and the qualitative analysis uses an ethnographic framework - Hymes' (1972) SPEAKING paradigm. It is a heuristic specifically geared the analysis of communicative events. Johnstone (2000), notes the suitability of such a framework because of its potential for 'uncovering' or 'unpacking' the layers of material being analysed. She notes that 'these metaphors suggest a peeling away of layers which enable the researcher to get closer to the center of things, the center of things being a native-like account of what is going on and the general ethical and epistemological principles that underlie it.' (p.99). This seemed to be especially appropriate in a study of email, as the emails form a bank of naturally occurring, real time data, recorded by the participants themselves. In this study, the center of things, has two layers: one - the attempt to gain some insights into the nature of organizational conversations conducted by email; and two – an exploration of the medium itself as a context in which and with which participants interact.

The researcher, although not strictly speaking a direct participant in the day-to-day business of the organization, is a member of the discourse community, participated in the data selection, was present in what was a very challenging time for the company, was involved in some of the discussions about the results and consequences of that time, and has maintained contact with the organization over a period of two years.

The unit of analysis is a *complex communicative event*, which for the purposes of this study is one email, comprising a unified set of components (the sequence of interactions) on one topic or issue. Each interaction within the email is defined as a *communicative act*. All emails share the same (formal) purpose in the sense that they are sent and received in the day-to-day business of the organization. Participants share a linguistic repertoire and in a sense form both a speech community and a community of practice

Each of the letters of the SPEAKING acronym corresponds to one aspect of analysis of the communicative event. The analysis that follows discusses each of these aspects in turn. Johnstone (2000) notes that 'In any given situation some aspects will turn out to be more definitive than others.' (p. 96).

5.1 Setting

In a sense the organizational setting could be described as a theatre, one that comprises a repertoire of events in which people play a variety of different roles. A theatrical repertoire may include: opera; one act plays; serials etc. The repertoire of organizational events may include: meetings; contract arrangements; problem solving; mergers; customer contact; projects; training; professional development; establishing and maintaining supplier and customer relationships; marketing presentations; press releases; public relations occasions performance reviews; celebrations and socialization. In organizations too, people may play the same role in some of these events but have different roles in others. For example a person may be a leader in one situation and not in another, an expert in one role and a support person in another.

In the day to day business of the organization, these roles are enacted largely through conversation. Conversation is how people 'do' being in an organization and it contributes to development of their organizational identity. Conversations also provide a window into the various 'organizational dialects' that people speak, which in turn indicate the organization's micro-cultural boundaries.

5.2 Participants

An examination of this aspect highlights a unique characteristic of email as a medium, and shows people's ability to recognize and utilize its potential. The medium facilitates a unique range of participation structures as well as flexibility in these structures throughout the course of a 'conversation'. For example, as an interaction proceeds, one or more people can be added to the 'conversation'. Conversely, one or more

people can also be left out, simply by having their name (s) removed from the list of addressees. They may not even be aware of it, depending on the stage the conversation is at. As well as flexibility in participant structure, the medium facilitates flexibility in 'audience' structure. For example, an email conversation that is developing into a heated exchange can be copied to one or more people who are not involved in the actual conversation but to whom the discussion or argument may be of interest, or whose support may be called upon. In this way participants can invoke power relations and attempt to enlist support for their point of view. As a discussion unfolds, other opinion may be sought relating to specific points of the discussion.

In Example 1 below, Company C wants to develop a closer relationship with Company A. The Company C Director emails the CEO of Company A with suggestions for a draft memorandum of agreement which he has attached. The CEO of Company A forwards the email to three key members of his company for comment. One of them responds, expressing his concerns, which the CEO then sends back to the Director of Company C. Each 'turn' in the conversation is numbered on the left.

Example 1. Some of the participation structures encountered in this study

	Conversation discussing memorandum of agreement
1	(One to one between companies)
•	Director Company C to CEO Company A Following our meeting of last week, I have evolved the discussion memo into a draft Memorandum of Agreement, which you will find as an attachment. Although this document describes an agreement based on sharing resources, revenues and joint marketing initiatives, I am interested to discuss how we could get our businesses closer. You mentioned for example a potential to look at a franchise model or other forms. As I indicated, I am keen to maintain separate business models and separate brands. However, Software development and consultancy can work in a small group. Let's discuss further.
2	(One to three – within company A)
	CEO Company A to Three key staff members Please review this and let me know if you have any comments
3	(One to one within the company)
	One of the staff members responds to CEO Concerns about the commission payment as it includes product. Hardware and software product is often sold at 10% or less. This in effect gives away any margin we may make on it.
4	(One to one across companies)
	CEO Company A to Director Company C William has some concerns about the commission on product sales. I think the best way is to work to an agreed % based on product margin rather that product revenue. What do you think?
5	(One to one across companies)
	Director Company C to CEO Company A He is right. We probably need to agree that per product as the % offered by vendors are usually different. It has to make more sense for both of us.

Other participation structures seen in the data set included:

- One to one (Company to Company)
- One to one (Within one company)
- One to three (Within the company)
- One to two (Three different companies)

5.3 Ends

Organizational email conversations achieve a wide variety of ends. Some of these could be described as knowledge creating, others as knowledge enabling, and some transactional. Others could be said to show more than one kind of characteristic. (Fletcher, forthcoming).

Table 2: Sample of the range of 'Ends' occurring in the data set

Туре	Enacted By			
KE/KC	Invitation to participate in creative naming of a new product			
KE	Conversation management (by incision)			
KE/KC	Using the services of a cyber-go-between			
KE/KC	Establishing a new inter-organizational relationship and setting up			
	parameters for its maintenance (more than once)			
KE	Maintaining a climate of care			
Tr/KE/KC	Problem solving			
Tr	Instructions from a larger company to the smaller one regarding the joint			
	launch of a new product			
Tr	Review of a new product before development finalised			

Tom Smith, CEO of Innovate comments 'We all use email pretty much all the time, often with a mobile phone too. It's mostly because of busyness.' In important company matters though, Tom calls a meeting of all company members, so that people can talk with him directly and give comments or ask questions face-to-face. But as he notes 'There is always someone who is late, someone who cannot come to the meeting, and someone who has to leave early, so I always back up what I say with an email, to be sure everyone is informed.'

Email is also used to achieve ends in ways that would not otherwise be possible. In Example 2 below, a 'cyber-go-between' introduces the CEO's of two different companies. The company in New Zealand, is looking for a U.K. company to work with, on behalf of one of their clients. The introduction proceeds in much the same way as a face-to-face introduction at a social occasion, except that instead of being left to talk together, they are left to 'email away'. Many people would call this a virtual introduction. But it is a real introduction between real people, and its aim is to establish a real

business relationship. A real communication end is achieved in a shared cognitive space, or mindspace.

Example 2. Introduction of two companies by a 'cyber-go-between

Cyber-go-between Bill introduces the CEOs (Tom and Paul) of two different companies

Hi Tom and Paul,

Paul as discussed, Tom from Innovate (www.Innovate.co.nz) is looking for some hosting/collocation requirements for a client who are expanding their UK client base and need local access. I believe you guys can assist

Tom, Paul is with NewBiz (wwwNewbiz.com) who do a variety of services including hosting which should suit. I have toured their facilities last year and they are world class. They are a good bunch of guys and technically know their stuff with a refreshing "can do" attitude.

So I'll leave you two to email away and if there is anything I can do to help, just let me know.

Kind Regards,

Bill Willis

Following this email the CEOs of the two companies (Tom and Paul) do "email away" and prepare the way for a new business relationship (See Examples 5 (a) and 5(b).

This 'conversation' indicates that people who use organizational email have developed a body of tacit knowledge about what it might be used for, and about how to use it in ways that accomplish ends which would not otherwise be possible, or possible only with difficulty. It also implies a level of trust by both parties in the cyber-go-between. On interview Tom said that he had investigated the 'go-between' and his company (online), and felt confident that he was trustworthy. As the physical location of the company is many thousands of miles from a number of clients, this has become a common method of doing business for this company.

In Example 3, company wide participation is invited in the renaming of a product that the company has redesigned. This is the final touch to the creative process, and it is important that the name decided on is in line with the company's new image. The email is addressed simply to Innovate – the company name. This was the only example of what could be called interruption, in the dataset. It comes in the form of a conversational incision by Eddie, manager of the design team, who also has input into marketing strategy. He acts as a conversation manager providing guidelines for input.

Example 3. Request for participation in the naming of a redesigned product

From: Susan Roy

Sent: Thursday, 19 January 2002 3:57p.m.

To: Innovate

Subject: Rename Everest

The time is drawing near to give Everest a commercial name. Everest consists of a series of web parts, designed to be tightly integrated with Innvest. The web parts make up a records management system which allows the users to not only store electronic information but metadata on physical documentation (books, publication files etc) and box information.

Ideas for a new name would be welcomed.

Susan Roy,

Professional Services

2 From: Eddie Overton

Sent: Thursday 19 January 2002 5:35 p.m.

To: Susan Roy; Innovate

Subject: RE: Rename Everest

Before you get your Brainiac-Thinking-Helmets on, remember also that the name needs to be a fit with the rest of the Innovate brand language.

So ... Think Pink

It needs to be funky and smart. Intelligent and yet slightly outside the square...

Go to it! Eddie

3 From: Athol Jones

Sent Thursday 19 January 2002 17:50 **To:** Eddie Overton; Susan Roy; Innovate

Subject: RE: Rename Everest

Handshake.

This use of metaphorical language, and of conversation management by incision are typical of knowledge enabling activities.

5.4 Act Sequence

The act sequence in the email conversations in this dataset, was alternating, complete turns between participants. In other words, organizational conversations by email do not generally feature the interruptions and overlap that are typical of face to face conversations. Interruptions are possible with more than one 'turn' being taken by a participant before a response is received, but it is not nearly as common as in the face-to-face medium. In this dataset there was only one 'interruption'. It was in the form of a conversational 'incision' by a conversation manager, guiding the direction and focus of a request that invited creative responses, but that also needed to ensure that responses would be in line with company image.

The alternating complete turn sequence occurred regardless of the relative formality or particular setting of the interaction. For example it occurred in: formal exchanges between companies negotiating contract arrangements; between team members solving technical problems remotely; and between organizational members of different status. Regardless of whether turns were short or long, formal or informal, they were almost always complete and alternating. Examples of turns are numbered in three conversations in Example 4 below. These three conversations are transactional, however all participants clearly have the tacit knowledge to effectively manage the turn sequence.

Example 4. Alternating complete turns in three email conversations

	Conversation 1 - Preliminary chat preceding the arrangement of a meeting
1	Patrick - Company A
	Welcome back from holiday! Hope you had a wonderfully relaxing time. It must be a
	challenge to deal with all the things that have been lining up for you while you have
	been away. Here's a copy of the weekly report for the month of January. Please call
	when you have had a look through the documents so that we can converge on what
	you think the Exec Team needs.
2	Nadine - Company B
	Didn't mean to ignore to ignore you but things have been piling up unfortunately. I am
	trying to get a slot with the executive – probably on the 20 Feb 9.45 – 11.45 a.m. so
	you can do another presentation plus the recommendation. Obviously we need to
	meet before the presentation. I'll come back to you.
3	Patrick - Company A
	Good to hear from you. That is fine – I can imagine the piles of stuff you had waiting for you. We've pencilled in the time you have indicated, and look forward to meeting
	with you in the next 2 weeks to prepare for the meeting.
	Conversation 2 - Remote Problem Solving
1	William - Client company
'	Report.Main [-2147024673]] '-' of object '-' failed
2	Ronald - Team Leader Company A
_	Client MRS problem [-2147024673]] '-' of object '-' failed
3	Daniel - Technician Company A
	Looked up the secure code and found out a bit more about what can cause this error. I
	rang William and got him to check the available disk space as I suspected that the web
	server might be out of disk space. He just called me back to say that it had 0 bytes
	free – they are going to free up some space. Pretty confident that this is the problem.
	They will sort it out themselves.
4	Ronald - Company A
	You are the man !! I don't care what the other managed services guys say about you.
	Conversation 3 - Arranging Product Demonstration and 'catch-up'
1	Nat - Company C
	Have you got any spare time tomorrow afternoon for a catch-up? I'm flexible all p.m.
2	Tom - Company A
	No Sorry. I've got a meeting from 1.00 to 5.00pm. I've got a pretty full day tomorrow.
<u> </u>	BJ has organized something at 11.30 with him and Eric. I'm free after that til 1.00 pm.
3	Nat- Company C
	Yes we wanted Eric to give you and key members of your team a demo of the updated
	and fully working "BBN Content" application before he departs on 3 months leave of
	absence tomorrow. Great that you can make it. Lets go for 12.30 to 1300 then for a
	catch-up.

This act sequence also facilitates reflection by both sender and receiver. The sender can reflect on the whole message before hitting 'send' and can check the tone and 'feel' of the turn, whilst the receiver has the opportunity to consider the whole turn, before making a response. The fact that email is also in effect, silent, could be regarded as enhancing this opportunity for reflection or contemplation.

The most formal examples of ends, showed a different way of achieving a similar act sequence, with a separate email for each complete turn. In these cases participants did not use the reply function, rather they sent a new email. So in this sense it was more like a formal business letter. In terms of content however, the response began with an informal greeting and proceeded directly to the substance of the conversation, as if it were another turn within the same email, so in this sense it proceeded in the same way as a conversation. This occurred a number of times in the data set and one instance is outlined in Example 5 (a) and (b) below. It is the 'conversation' that took place following the introduction illustrated in Example 2.

Example 5(a). First direct contact between the two companies following the introduction shown in Example 2 (Original spelling errors are underlined)

Hi Paul

We have a client that offers a finance company management system to their clients. They have huge demand from the U.K. and are about to have a big increase in the number of clients. They have asked us to investigate the possibility of hosting servers in the U.K. for their U.K. customers.

[A paragraph of technical details follow]

What I would like to know is if you can help us and would be prepared to work with us to provide our client with a U.K. based hosting solution. I'm also hoping I've provided enough basic information so you could give me some indication of what it will cost for this service.

Thanks for your help, Tom Smith

Example 5(b). Response to first direct contact following the introduction

Hi Tom,

We will <u>proved</u> you with a control panel as well which will enable you to power cycle the machine remotely and view daily statistics. We also have a Service Level Agreement which guarantees 99.5% uptime.

Please let me know your thoughts on this, Regards Paul

In face-to-face conversation, people often begin their response before the speaker's turn is complete, resulting in a series of interruptions and overlaps. But this was not the normal pattern observed. It occurred only once in this dataset (in the conversational incision in Example3). So in some respects email conversations could be said to proceed in a more orderly fashion, or to more readily keep to the subject, than say a face-to-face or telephone conversation. When looking at the act sequences in the various kinds of interaction, an additional kind of pattern emerged. It is a feature that will be referred to here as the 'shape' of the conversation.

In more formal conversations, for example in 5(a) and 5(b) (previous page), where a business relationship was in its early stages, or where technical information advancing a relationship was being exchanged, turns were longer and each turn was of a similar length. So the conversation 'shape' looked like the one in Figure 4 A. However, where participants were part of the same community of practice or team, conversations typically began with one longer turn, followed by progressively shorter turns, until often the last turn comprised only one line, or in some instances one word, so the conversation had a wedge like 'shape' as in Figure 4B.

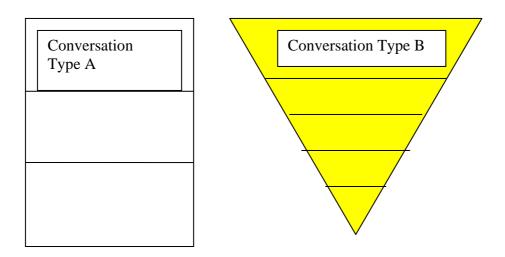


Fig. 4. Two different shapes formed by the ways a conversation proceeds

This pattern is consistent with the principles of linguistic politeness theory (Brown & Levinson 1987), which accounts for why in conversation, people from different cultures, or people who do not know each other well, adopt more formal rituals of greeting and parting, use more conversational preliminaries and spend more time in negotiating meaning. These conversational strategies serve to both establish and maintain a conversational distance between participants, which is appropriate where the

participants do not know each other well or in more formal settings. But where people work closely together, or are close friends or old acquaintances, and where frequency of interaction is a common, less time is likely to be spent on formal greeting and parting rituals or preliminaries, and conversational purpose can be achieved relatively quickly. These conversations often exhibit decreasing turn length as the conversation proceeds, as in Fig.4 B.

5.5 **Key**

Key is the overall register of the event. Usually such an analysis reveals that the interactions have either a formal or an informal quality. Some of these emails were more formal (Examples 5(a) and (b)) and some informal (Example 3). But some had interesting and not always easy to define elements of both.

5.6 Instrumentality

The features of email as a medium are numerous, and they impact on a many aspects organizational conversations, presenting both challenges and opportunities. These features include but are not limited to: facilitation of unique and flexible participation structures, enabling an increased diversity of perspectives to be applied to challenges, problems and creative processes regardless of differences in location or time zone; simultaneous dispatch to multiple addressees; a degree of certainty that the communication will be delivered promptly, regardless of distance or time zone - this can influence our perception of whether or not it is worth communicating with someone; persistence – the message remains in the system until dealt with – providing a degree of confidence that it will be dealt with; unparalleled speed of delivery – this too can alter our perception of whether or not it is practicable to communicate with someone; a fast response option in the reply function - when its use is appropriate it simplifies the response effort; simplified preparation in the preformatted template - this can also affect our perception of ease of communication; a considerable degree of confidentiality – for the most part organizational email systems are confidential.; global reach that enables communication regardless of geographical or temporal distance; and silence -a feature that may promote both reflection and entry into the 'mindspace' of e-ba.

5.7 Norms

Norms for interaction and norms for interpretation are one means of 'seeing' the boundaries between organizational micro-communities. This can be seen in the language and in the linguistic practices that accompany it.

Norms observed in these email interactions are consistent with politeness theory (Brown & Levinson, 1987). This theory accounts for: interactions between people of different cultures, different status, or different degrees of intimacy; aspects of conversational strategy associated with these; and appropriate norms for their use. A discussion of the theory is beyond the scope of the paper but an illustration of one of its principles in action may be helpful. Briefly – the greater the degree of formality the more distant the relationship, and the greater the degree of informality the closer the relationship.

One of the ways these norms are exhibited by people is in conversational rituals of greeting and parting. In settings where participants were just getting to know each other, greetings tended to be more formal and traditional. But where participants were known to each other the degree of formality was less, and where people were close colleagues or friends, greetings and partings were very informal, or sometimes absent altogether. Examples of the various kinds are provided in Table 3 below, with the greeting in the centre column and its corresponding close in the right hand column. The number of greetings and closes in one box represents the number of 'turns' in the conversation.

Table 3. Sequence of greetings and closes in four different email conversations

Setting	Greeting	Close (Parting)
Sample One		
CEO to 'go- between'	 Hi Tom and Paul 	1 Kind Regards Ben Ward
Tom to Paul		
	Hi Paul	2 Thanks for your help
Paul to Tom		Tom Stevens
	3. Hi Tom	3 Regards Paul
Sample Two		
Company A to Company B	 Dear Tom 	1 Regards Dennis
established relationship	Hi Dennis	2 Tom
	3. Tom	3 Regards Dennis
	Hi Dennis	4 Tom
	5. Tom	5 Dennis
Sample Three		
COP members - company A	 Hi Nadine 	1 Patrick Prince
to COP members Company	Hi Pat	2 Cheers Nadine
_B	Hi Nadine	3 Thanks Pat
Sample Four		
Two team members	No greeting.	1 No close
Company A - solving a	Only addressee, subject line	
technical problem by email	and message	

Some of these greetings and closes are similar to the way they would be expressed in a letter, while others are more like expressions we would use in face to face conversations.

5.8 Genre

Hymes (1972) notes that genre is concerned with participants and setting. Email is a genre in its own right and one that is it is used for many different functions, for example, introductions, setting up meetings, progressing contract negotiations, problem solving and many others.

6 Conclusions

Johnstone (2001) notes that in an analysis of this type some characteristics often prove to be more definitive than others. In this study, the characteristics of the medium itself, together with the ways in which people use it, suggest that email provides a unique form of ba that may, through its role in the development of social and intellectual capital, impact on the development of organizational knowledge.

Instrumentality and Social Capital

Email appears to impact on the structural dimension of social capital through the network ties it facilitates. It facilitates social connections by means of technical connections, and the scope and reach of communication facilitated through the technical network are unparalleled. People can establish and maintain many different kinds of organizational relationships across vast spatial and temporal distances with others they may never meet face-to-face, but with whom real and meaningful communication is possible. Such connections provide access to a wide range of information and provide opportunities for knowledge combination and exchange. The technical properties of the medium in this study made possible the social/organizational connections between the two companies in Examples 2 and 5, regardless of considerable temporal and geographical constraints.

Diversity of opinion is one way of expanding knowledge, and this aspect of the cognitive dimension of social capital, requires at least some sharing of context between the parties to the exchange. The medium of email facilitates the availability in a meaningful time frame, of an increased array of perspectives that can be brought to bear on organizational challenges, problems, issues, or knowledge creating activities. In this dataset, the CEO of Company A received a suggestion for a memorandum of agreement from another company (Example 1) and immediately sought input from three key staff. Not only was an opinion forthcoming but the process was transparent. Although not in itself an example of knowledge creation or knowledge enabling, this

does indicate another attribute of email as a medium. People who use it frequently in organizations, develop a body of social tacit knowledge about what it can be used for and a shared understanding of how to use it effectively in the day to day business of the organization.

This example also displays a climate of trust, in which the CEO showed a belief in the competence of his employees to provide an opinion on the agreement being proposed, and employees were confident to provide that opinion. Trust is a key element of the relational dimension of social capital and an essential attribute of a knowledge creating context. Miztal (cited in Nahapiet & Goshal,1998),defines trust as 'the belief that somebody's intended action will be appropriate from our point of view.' Miztal also observes that trust secures communication and dialogue.

Innovation generally comes about through combining different knowledge and experience and this process depends on meaningful communication between the parties involved. One of the ways in which this comes about is through shared language and codes. The email conversation in Example 5 shows the use of shared language and technical codes by the two CEOs who are preparing to establish a new business relationship. This may not be regarded as innovative, but it is nonetheless remarkable. Two people were introduced by someone neither of them has ever met, and although a longstanding business relationship may develop, the parties themselves are unlikely ever to meet. This manner of doing things is facilitated by the medium of email and the mindspace or *e-ba* it provides.

Communicative Competence In Organizational Emails

Participants in these emails showed a high degree of communicative competence. There were few uncorrected typing errors, and no flaming. Content was well organized and showed a generally high standard of grammar. Participants showed a good command and effective use of plain language, and appeared to have considerable tacit knowledge about how to use the medium effectively.

E-Ba and Conversation

Email communication in e-ba shows some characteristics of both spoken and written conversation. It is like spoken conversation in the sense that people use similar rituals of greeting and parting and similar conversational strategies of politeness. But it is different in that the 'speaker's' turn is unlikely to be interrupted, and the 'speaker' has

time to reflect on the message before it is sent. The style, tone and content can also be checked before despatch, and regardless of whether the receiver is 'in', the message will remain in the system until dealt with, so it is more persistent than spoken conversation. The communication that occurs, is real communication, between real people for real organizational purposes, and it achieves real organizational ends. The most virtual aspect is the mindspace where the communicators meet. The permeability of organizational boundaries and the unique ways of conducting social relationships afforded by the medium of email, not only increases opportunities for access, but together with other properties of the medium, may encourage people to communicate with others they would not normally communicate with.

Email as Double Edged Sword

The positive characteristics of the medium are also accompanied by negative aspects. The ease of access and ease of use mean that many people in organizations are burdened by information overload. One can scan the subject lines of incoming emails to decide on a priority order for attention, but this too takes time. Although it is quiet in one sense, it is noisy in terms of busyness, a cognitive noise that is sometimes difficult to shut out.

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Limitations

Results of such a small study cannot be generalised, but analysis of even this small dataset suggests that the properties of the medium and the access it facilitates, may influence people's perception of what is possible by email, especially in terms of communication and exchange across organizational and community boundaries.

Implications

The characteristics of *e-ba* and the innovative ways in which people use it, raise interesting questions for future research, for example questions about the emergence of distributed cognition, in which the text of email functions as a semiotic substrate.

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