December 2002

Email and Assumptions: a study in electronic (mis)understandings

Cate Jerram
University of Western Sydney

Dubravka Cecez-Kecmanovic
University of New South Wales

Lesley Treleaven
University of Western Sydney

Chris Sykes
University of Western Sydney

Email and Assumptions: a study in electronic (mis)understandings

Cate Jerram

University of Western Sydney
c.jerram@uws.edu.au

Dubravka Cecez-Kecmanovic

University of New South Wales

Lesley Treleaven

University of Western Sydney

Chris Sykes

University of Western Sydney

Abstract

Email and other forms of electronic communication have assumed a significant role in the communication processes of organisations. Yet despite increased efficiency in the communication process, miscommunication still abounds. In this paper the sensemaking model of knowledge in organisations is used to analyse communications and miscommunications experienced by persons relying primarily on emails and intranets as their major means of communication in an organisational context. This analysis leads us to a greater understanding of the assumptions behind the use of computer-mediated communication, the weaknesses and danger inherent in these assumptions, and possible means of overcoming these weaknesses.

Keywords

Email; computer-mediated communications; intranet; sensemaking model of knowledge

INTRODUCTION

In recent years, computer-mediated communications, particularly email, have assumed a significant role in the communication processes of organisations and individuals. Electronic forms of communication have accelerated to the degree that it is now considered severely disadvantageous for business to be conducted in any organisation without the aid of email, Internet and intranets. Electronic communications are regarded as fundamental business tools without which the modern organisation or business may not survive. "As the technologies for computer-mediation evolve, businesses are increasingly relying on computer-supported forms of communication, collaboration, and coordination" (Trauth and Jessup, 2000:44). Moreover, given the importance of knowledge sharing and dissemination for the effective functioning of organisations, electronic communications are seen in a new perspective. As Schwartz and Te'eni explain "Knowledge links up with action by a process of contextualization. To make these ideas work in practice, we rely on the Internet and email as a transport layer for knowledge dissemination" (2000:33).

Research into the use of email and other electronic means of communication in organisations has been approached from a number of directions. Technological determinism assumes that certain technological applications will always effect a specific response. This is basically founded on the media richness theory (Daft and Lengel, 1984) that proposes that communication technologies are selected and used based on the attributes of the medium, particularly on how 'lean' or 'rich' the medium is in terms of speed, bandwidth, ability to personalise language, source, and so on. Arguments have ensued as to the suitability of media richness theory to analyse new media (Markus, 1994; Fulk and Steinfield, 1990) with considerable disagreement as to the 'leanness' or 'richness' of email. In a completely different approach, email has also been considered for the degree of social presence and socio-emotional communication articulated (Rice, 1993; Sproull and Kiesler, 1986; 1991)

and/ or task performance (Perse, 2001). More recent research considers factors such as "needs fulfilment, appropriateness, social norms, and peer evaluations" (Flanagin and Metzger, 2001:157). Researchers such as Romm and Pliskin (1995) have developed theories regarding the use of email for political purposes. Some researchers have begun to research the combination of the more technological approaches like Daft and Lengel and Perse with more socially-based approaches such as those of Rice and Sproull and Kiesler (Yoo and Alavi, 2001; Flanagin and Metzger, 2001).

Flanagin and Metzger point out that "media perceptions are subjective and socially constructed" (2001:158), highlighting the need for further research toward linking understanding of the individual subjective and the socially constructed and mediated responses to electronic media. Yoo and Alavi also suggest that "when limited to lean electronic communication technology … managers need to pay special attention to the development of group history and social relationships among members, which can provide additional means of reducing complexity" (2001:385). Addressing these lines of inquiry simultaneously, this paper aims to advance understanding of the organisational use of email as an extended social space. More specifically, the objective of the paper is to provide a deep insight into the nature of email communications and the way they affect meaning making and co-creation in a social context. We aim to achieve our objective by adopting a sensemaking view of organisations (Weick, 1995), and specifically, a sensemaking model of knowledge in organisations (Cecez-Kecmanovic and Jerram, 2002). The sensemaking model will be used to analyse a field study in which electronic media were used extensively during a restructuring process of a University. By examining participants' experiences with emails and their sensemaking processes, we demonstrate how the model can be used to interpret subjective and socially constructed meanings associated with it. This research adds to the body of knowledge about the use of email by individuals, groups and organisations and its social consequences, and especially, how the use of email enables and constrains different knowledge sharing and sensemaking processes.

In the following section, we describe the field site and the research methodology used to investigate it. Following this, the sensemaking model of knowledge is explained, and then we look at how this model can be used to bring new understanding to the use of electronic communications in organisations. Greater detail and further particulars are then given about the specific event/ process under investigation – the actual restructure process as it happened, as perceived by the participants interviewed. These perceptions are then analysed within the framework of the sensemaking model as we make sense of cause and effect, responses and understandings. Conclusions are drawn and finally recommendations are made toward more effective use of electronic communication, based on a sensemaking approach to the issues involved.

THE FIELD SITE AND RESEARCH METHODOLOGY

The case study to be examined is set in what was the University of Eastern Australia[1] (UEA), a university that previously comprised of three members. Our study focuses on the restructure which occurred when the three member-universities sought to merge to become a single, unified university. This unification process was conducted over nine geographical sites spread across many different suburbs in a large metropolitan area. Some of the campuses involved were over 60 kilometres and a 1-hour drive apart. The three former members had a history of competition, rivalry and, in some cases, animosity. There had been little previous experience of knowledge sharing or friendly cooperation between members on different campuses. Consequently, there were a number of tangible and intangible challenges to overcome in the communicative and expected cooperative processes required in the unification and harmonisation processes for the restructure. The University Executive trusted that electronic communications would facilitate overcoming these barriers, particularly those caused by distance.

---

[1] Not the real name

In order to gain a contextual understanding of participant experiences with the use of electronic communications during the restructure, we conducted an interpretive field study (Walsham, 1993; 1995). Recognising that actors' interpretations are socially shaped by inter-subjective sharing and meaning-making, our study was approached by immersion in the situation and seeking to understand the experiences of key actors in the process. Drawing on Van Maanen's (1979) organisational ethnography, we considered actors' interpretations of their experiences and constructions of reality as 'first order data' and our own interpretations of actors' interpretations and constructions as 'second order concepts'. In our development of the second order concepts, we applied the sensemaking model of knowledge in organisations to interpret the use of email in a particular restructuring process.

The research approach and objectives necessitated close involvement and emersion of researchers in the field, so participant-observation was adopted. While immersion in the field was necessary to get to a deeper understanding of social interactions and their meaning in a context (Nandhakumar and Jones, 1997) we ran the risk of "losing the eye of the uninvolved outsider" as Glesne and Peshkin (1992:40) point out. We therefore made a conscious effort to deal with our preconceptions and biases by nurturing a reflective attitude towards our perceptions and interpretations and, in addition, involved a fourth researcher, who did not engage in the field, in the interpretation of the first order data.

Our first order data came from 20 in-depth semi-structured interviews of one and a half to three hours each with staff members from across the whole University. These included a sampling from a wide range of the personnel involved in the restructure. Interviews were conducted with members of the senior executive including the Vice-Chancellor, and with persons from all levels of Academic and General staff from all three former members of UEA. Documents were obtained primarily from public email and the University website, particularly the website bulletin board dedicated to intranet communication about the restructure. Public emails were a common form of information dissemination during the restructure, and these were collected and analysed. Many of the relevant private emails sent between members of staff and by email groups were saved and these too were provided for us to analyse. Three of the four individual authors of this research were present during many of the events of the restructure, so their personal and research field notes were also kept.

Once interviews were transcribed and emails and other documents collected and collated, analysis was then approached with thematic coding as described by McCracken, "… to determine the categories, relationships, and assumptions that informs the respondents' view of the world in general and the topic in particular" (1988:12). The thematic coding was then informed and clarified by the sensemaking model of knowledge in organisations, enabling our second order analysis and providing a lens to view the effect of email on mediating social space. This process is described below.

SENSEMAKING MODEL OF KNOWLEDGE AS A METHODOLOGICAL FRAMEWORK

At its simplest, sensemaking recognises that, as human beings, we make sense of the world around us, all day, every day, in every situation. Thomas, Clark and Gioia describe this as "the reciprocal interaction of information seeking, meaning ascription, and action" (1993:240). Taken a little deeper, it recognises that the ways in which we make sense of the world around us changes and is shaped not only by our individual personalities, and perceptions, but also by social interaction, our cultural perceptions and norms, and our mutually shared and differently understood perceptions of the same experiences. Taking this tangle of affecters and shapers, the sensemaking model clarifies and orders our interpretations of individual and social meaning ascription and action in organisational contexts.

The sensemaking model of knowledge in organisations (Cecez-Kecmanovic, 2000a; 2000b) is grounded in the seminal works of Weick (1995) on the sensemaking approach to organisations, and blended with Wiley's concept of the semiotic self and its reduction in a social context (1988; 1994). The sensemaking model identifies four levels of sensemaking in

organisations: 1) the *intra-subjective* sensemaking by an individual, 2) *inter-subjective* sensemaking by a group of people engaged in interactions, 3) *generic-subjective* sensemaking involving maintenance and (re)production of social structure, and 4) culture as an *extra-subjective* level. Each of these four levels of sensemaking are the source of specific types of knowledge: individual, collective, organisational and cultural, respectively. Knowledge is continuously created and recreated within each level of sensemaking and also through the simultaneous interplay between all levels.

At the *intra-subjective* level, the individual's person, personality, character, values, beliefs, experience, education, etc are what shapes that individual's perceptions and interpretations by which they make sense of their world, themselves, other people and events. It is the individual person who knows, learns, remembers, forgets, acquires new skills, and becomes rusty in others. "Sensemaking in organisations begins with the personal perspectives individuals use to understand and interpret events that occur around them" (Tan and Hunter, 2002:40). It is the individual *intra-subjective* level that makes all the other 'supra individual' levels possible.

Once individuals come together to communicate and develop mutual understanding of a situation, their sensemaking becomes *inter-subjective*. Through social interaction and communicative practices, new shared understandings emerge, often leading to innovation and knowledge co-creation. The inter-subjectively created understanding, knowledge and energy in turn shape and change individual sensemaking. Such collectively shared knowledge, 'owned' by a group, cannot be equated with the sum of its parts (that is the sum of knowledge by individuals). To explain the inter-subjective sensemaking, we refer to Ryle's concept of 'collective mind' (1949) that does not happen in isolated instances within the individuals who are together, but rather develops within the group, between, among and with the individuals who comprise the group. Collective mind develops when group members interact with each other with heed, paying attention to each others' views, perceptions, feelings, needs and actions. Both the concepts of collective mind and heedful interrelating (insightfully used by Weick and Roberts, 1993) are essential for understanding the phenomenon of inter-subjective sensemaking and knowledge co-creation in groups.

Within an organisational setting, however, there are structures, roles, norms, rules, policies and hierarchies that have *generic* meaning for the members of an organisation. These generic meanings are shared by organisational members irrespective of their participation in their creation. At this level of sensemaking, called *generic-subjective*, there are prescribed and expected 'scripts' and 'plots' (Barley, 1986) and normalised behaviours that are looked for and expected. Knowledge created and maintained at this generic-subjective level characterises an organisation, distinguishes it from other organisations and enables it to develop a range of responses to changes in its environment. Therefore, we call it organisational knowledge. As such, it is a key source of stability and survival for the organisation. However, turbulence and unexpected changes in the environment cause organisations to change. As this is first experienced at the social interaction level, new ideas and innovative responses are created inter-subjectively, typically contradicting established organisational knowledge (e.g. emerging new relationships with clients via the Internet not in accord with existing policy). As often happens, such innovations and new knowledge at the inter-subjective level causes tensions with organisational knowledge (policies, norms, rules etc.) at the social structure level. Resolution of these tensions is among the key issues of 'organising' and defining features of organisations (Weick, 1995).

Culture, as a symbolic reality present in customs, stories, myths, metaphors, values, and language of an organisation, represents the *extra-subjective* level of sensemaking. Organisational culture provides a reservoir of background knowledge that makes understanding at all other sensemaking levels possible. Unlike the organisational knowledge and social structure at the generic-subjective level, knowledge embedded in organisational culture is usually implicit, assumed and taken-for-granted. Consequently, it is also usually unrecognised and unchallenged unless identified and addressed.

The four levels of sensemaking and respective types of knowledge, which we refer to as "the sensemaking model of knowledge in organisations", describe different forms of social reality that are continuously created and recreated by actors in an organisational setting. These forms of reality are simultaneously present for all actors, albeit perceived differently by each. As actors engage in the ongoing sensemaking processes in their work environment and decision-making, they draw from knowledge at each level and, in turn, transform knowledge at these levels. However, the way actors make sense of events, depends not only on their past experiences, personal characteristics and education but, more importantly, on their perception of *self* and their place and role in the organisational structure, and to what extent they identify with their workplace and profession or with their organisational role. Namely, actors with organisational responsibilities (e.g. Executive roles) are typically closely aligned with the *generic-subjective* meanings, that is, structures, norms and policies that govern the setting and events perceived. Someone, for instance, who participates in, or is responsible for upholding, the formulation and implementation of an organisational policy (e.g. student enrolments in a university) will interpret and understand events through the lens of *generic-subjectivity.* On the other hand, an actor who applies this policy (student enrolment officer) will interpret and understand the same events differently due to their intimate knowledge of the enrolment process and their day-to-day interaction with students. While the meanings ascribed by the policy maker are necessarily normative and generic, the meanings by the officer are necessarily inter-subjectively created. Different views of the same events are therefore inherent in the way organisations are structured and governed. We might say that such differences are even necessary for organisations to function. Opposite and conflicting views and perceptions, though, do cause problems and may disable the everyday flow of information, knowledge sharing and organisational learning.

Such situations are more likely in times of organisational change when 'old' organisational knowledge loses its currency and 'new' knowledge is not yet established. We participated in and observed these processes during the university restructure. Seeing the many events and processes within the restructure through the lenses of the sensemaking model enabled us to make sense of them and develop our own understanding of how they unfold and what they produce. In particular, the model helped us analyse and interpret how the use of email mediated inter-subjective sensemaking and assisted participants in their intra-subjective understanding. Moreover, we analysed how email was used to transfer knowledge from the social structure level to the social interaction level. Before we present our analysis and interpretation, we shall give some necessary details of the school formation process.

THE STORY OF SCHOOL FORMATION

The fundamental restructuring of UEA began with the dissolution of old faculties across all three former university members and the creation of four new Colleges of Humanities, Health, Arts and Business. At this point a "bottom-up" process was announced for staff to create and form their own Schools within their chosen College. Staff from across the nine different campuses associated with the three former members of UEA needed to communicate and negotiate to formulate proposals for new Schools. Once staff had agreed on the composition of disciplines in each school (and the schools were endorsed by Executive), staff members were then free to assign themselves to the school of their proposing and/ or choosing. With the extraordinary difficulties inherent in a communication-negotiation process spanning such prohibitive distances and travel times, electronic media were engaged as a primary means of facilitating this process. There were a few guidelines with which the negotiation process had to conform. The primary requisite was that there be no duplication of disciplines between schools. Other guidelines suggested minimum and maximum numbers, coherence of discipline, and logic of affiliation. Otherwise, staff were encouraged to think and organise themselves innovatively and to seize the opportunity for new and exciting disciplinary combinations for teaching and research.

For the majority of the staff across the new university, the school formation process was comparatively successful, causing such comments as, "the staff involved went through what I think are excellent consultative processes and came out at the other end with really good schools which people tell me that they are really happy to belong to" (Senior Executive). The

paths taken by these successful schools can in many instances be seen and analysed on the forums used by these groups in their school formation process.

However, the school formation process of what is now the School of Management examined in this case study, did not fit this profile. Rival proposals within the field of Management were put forward, causing factional disputes that were unable to be resolved in the facilitation or negotiation processes. Email was used extensively in many forms: on a one-to-one basis, within small and large groups, between the groups and for university-wide distribution of documents and information. Early in the process there was some fairly extensive use of broadly dispersed emails, forums, and face-to-face meetings. Use of these modes declined as the disagreements and divisions grew and negotiations failed. In the end, the "bottom-up" process failed to create a proposal mutually agreed upon by the interested academic staff and the Executive finally had to resolve the disagreement and make a decision.

Importantly, both "successful" and "unsuccessful" school formations had the same means of communication and negotiation available to them. These included a range of communication media. There was an intranet bulletin board in which policy documents were posted and where school proposals could be argued, discussed and decided. These electronic forums allowed posting of suggestions and ideas, discussion of those ideas, public announcement of face-to-face meetings, the opportunity to ask questions and receive a wide range of answers from peers and colleagues, Executive and administrative staff who participated in the forum. Every member of staff had use of the university email system and access to the staff email directory, as well as email groups based on previous faculties, campus distribution, and current school proposal interests. Public emails were regularly posted:

> We went through a process of very regular university-wide emailing saying "this is a decision, this is something that is happening, and you can find the paper at … and we put it on the web. We also made sure paper copies were available.

> (Administrative Executive)

The Vice-Chancellor held public face-to-face forums on every major campus, allowing staff and students to respond or question guidelines and policy statements. There were numerous committees, meetings, and groups, with varying degrees of influence, responsible for different components of the restructure. These groups, their members, their meeting times and agendas were all published by college-wide email and on the intranet bulletin board. There was no censorship or banning of any public or private form of communication through any of these media. Staff were free to propose, agree, disagree, suggest, contradict, communicate, when and how often they chose.

> …to make sure that people knew of meetings that were taking place, so that if an individual wanted to, they could go to the meetings where several Schools were being discussed, so that they could make an informed choice and engage in the process of School formation etc… That was the process… informing the staff as well so that they knew

> (Senior Executive)

So what happened in the school formation process for the Management group?

Particulars of the Story

Three conflicting Proposals were being negotiated concerning overlapping courses, subjects and staff. An early Proposal, led by the largest management group from the previous University member A, recommended that all faculties, subjects, disciplines and courses that had anything to do with Management or Business all become one large School of Management (SOM). Two separate, smaller groups (from other two University members B and C) some of whom had originally listened to the SOM Proposal and had initially been willing to participate in it before other alternatives were discussed eventually formed separate Proposals, a School of Organisational Studies and Information Systems (OSIS),

and a School of Employment and Workplace Relations (EWR). After a formal presentation of these two proposal at the publicly announced meeting, the two smaller groups were informed (by facilitators in the school formation process) that they were each too small to develop separate schools but could combine to form a viable alternate school proposal (WROSIS), thus reducing the negotiations to two conflicting proposals.

There was another attempt to harmonise all the proposals into a revised SOM proposal that assumed the school having a discipline-based substructure. This idea was accepted by all three groups, but was against the school formation guidelines and the Executive vetoed it. Subsequently, the SOM proponents still expected the two smaller proposals to merge with the SOM adopting an informal discipline-based substructure. But the advocates of the alternate WROSIS proposal were not satisfied with such a solution and, finally, both proposals were placed before the Executive.

No agreement could be reached through a democratic process, so the Executive made a final decision in favour of the one large School of Management. One reason given for the decision being in favour of the one large school, and not two separate entities, was that the alternate Proposal carried names that were already listed in the larger school's list of "staff committed to this Proposal", which had been submitted first. Ironically, many of the staff thus 'double-listed' had not, to their knowledge, agreed to have their name on either document. Each proposal listed names of staff members who stated absolutely that they had not been asked, and had not put their name to the lists. Some of the named staff also stated that they did not originally know of the proposal they were purportedly supporting, did not know the details, had not been consulted, and had not attended the meetings that were advertised in the emails they had not received (or read). As well as this, SOM proponents were disappointed that some staff members had "reneged".

How did these contradictory, conflicting views and misunderstandings arise despite (or through) the open and democratic process that extensively used email and Internet forums – quick, clear forms of communication that can be easily and permanently stored?

EMPIRICAL DATA ANALYSIS: ASSUMPTIONS OF EMAIL USERS

First Order Analysis or the Actors Interpretations

Considerable dissatisfaction was expressed concerning the communication processes generally including the face-to-face meetings, such as forums, and the electronic forms of communication available. Distance made face-to-face meetings difficult, so electronic means, in particular email, was the principal form of communication among all the groups involved. However, the majority of persons interviewed stated dissatisfaction with the use of email during the process. Various and diverse reasons were expressed. We summarize here key issues and assumptions about the communication process, especially email, identified in interviews with individuals from all levels of Academic and General staff and the University Executive.

The Executive believed that the use of emails sent to 'all staff' would, along with other non-electronic means, effectively communicate the purpose, objectives and mechanics of the re-structuring process, enable coordination of various activities and groups, and provide an effective avenue for staff consultation and feedback. "Certainly emails have been used a lot for information sharing" (Senior Academic). All participants agreed that they used email extensively. "The email allowed people the privacy and time frame to put well considered and thought provoking information forward that … might not have been possible in a large forum" (Senior Academic).

Individuals from all levels of Academic and General staff; Some expressed a problem with 'info-glut' or information overload, "The big problem with email unfortunately is the possibility to be overloaded with rubbish amongst the grains of truth". "I've seen some cases where senior staff is getting 200-300 emails a day - most of which are 'copy only for information'... Now the majority of senior staff still feels obliged to read their emails personally…"

(Academic Administrator). Some felt that problems with emails were simply a reflection of the limitations of the medium, "[email's] very good at getting explicit stuff across, but it's very poor at doing tacit knowledge" (Academic). More staff, however, expressed serious dissatisfaction with responses to emails and the effectiveness of catching someone's attention, being understood, or attracting a reply. "All the replies that I have had [email to email] I have felt they are little more than brush offs" (Academic), and "They expect to get a reply when they write. And they get it. But it seems to me… that if they don't like the question that they're being asked in writing, they just don't answer" (Senior Academic).

The most significant comments, however, were specific to the claims of the rival proposals. *Proponents of the SOM* claimed that they had "emailed" everyone, and therefore "everyone was invited". There was complete confidence that persons named on their lists as supporters of their proposal had volunteered their names or, at least, consented to be listed, while this was vehemently denied by some of the persons so named. The major proponent of the proposal stated, "there was a consensus view amongst the Management academics that the best way to go would be a single school", and "after an agreement had been reached with those people that there would be a single School of Management, an alternative proposal went in" (Academic). Yet one of those staff members supposedly thus 'contacted' by one group and 'in agreement' with the other stated, "My name was on two proposals, and I wasn't asked about either one".

One of the key personnel in starting one of the alternate proposals discussed the process by which they recruited staff to participate in and support their proposal:

> *We've used emails as the major source of exchanging information… So we did exchange the ideas, written proposals… People came back amending these proposals, so that when we went to these committees, the final draft was no surprise to anyone on our side. And of course, all the teams were invited to all the meetings… Anybody could have gone to the meetings that we've had. So we only used emails and face-to-face contact*

(Senior Academic)

The clearly communicated, although unspoken, assumptions behind many of these claims and counter claims include 'I sent an email, therefore everybody read it', and 'They read my email, therefore they understood exactly what I meant'. A singularly apt comment on this is offered by Schwartz and Te'eni, "Beauty might be in the eye of the beholder, but meaning is in the eye of the e-mail author" (2000:35). Certainly while authors assumed that all persons read their email and understood it to mean what they, the author, meant, many email recipients claimed not to have received emails they were supposedly mailed (mail is still getting 'lost in the post', apparently!), or received the email but did not have time to read it, or read a message and misunderstood what it meant. "People have heard but they didn't understand necessarily. They read the emails without internalising the content and understanding" (Academic).

Several studies suggest that social relations between the persons communicating are a critical factor. Yoo and Alavi, for instance state, "These studies have found that social factors, such as cohesion among group members, organizational culture, and norms, profoundly influence the way in which media are used in organizations" (2001:372). This is a particularly relevant conclusion in this study. Similarly, Sillince suggests, "The effectiveness of information exchange in the use of computer-mediated communication systems is increased when there are relational links of trust, commitment and frank expression between members" (1999:245). Most participants expressed clearly that their trust had eroded through the restructure process, and cynicism had taken its place. Many also stated that they believed that "disillusion was common" among their colleagues.

Second Order Analysis Using the Sensemaking Model

Interpretations of the school formation process and especially the adoption of email in this process by various individuals and groups, as evidenced from our interviews (summarised

above), and personal experiences of authors as participants in this process, signal that we need to search deeper to be able to explain why a bottom-up democratic process failed in the case of the School of Management. Moreover, why the use of email for public dissemination of major information and decisions and for collaboration and coordination of processes was so disappointing. The second order analysis, applying the sensemaking model of knowledge in organisations, aims to provide some answers to these questions. Apart from intra-subjective understanding and interpretation of these issues (resulting from intra-subjective sensemaking), we need to investigate other, inter-subjective, generic-subjective and extra-subjective sensemaking to get a more comprehensive and deeper insights into the process.

First, at the level of inter-subjective sensemaking it became clear that there were significant problems between senders and receivers of email. The major difference between email senders and recipients of information about school proposals were their assumptions, which in the emailing process remained implicit and therefore gave rise to further misunderstanding. Invitations to meet or comment and documents were distributed to ad hoc group lists of academics by self-nominated initiators of proposals. As senders, individual academics assumed that meant that each academic was informed, and consequently, that they were obliged to respond. While some did respond, a genuine discussion was very rare. When an 'informed' academic did not respond to a 'proposal' or an 'invitation', it was interpreted by the sender that the recipient was consulted and he/ she agreed with, or at least did not object to, the proposal. Thereby, the initiators of school proposals (in the role of senders of emails) regarded electronic communications as an important social space for presenting and legitimating their proposal. On the other hand, participants of the school formation process (in the role of recipients of emails) did not perceive email distribution of proposals as a consultation and legitimation process and consequently assumed no obligation to respond to mass emails by self-nominated initiators. Furthermore, the recipients did not share the senders' tacit understanding that no response meant agreement. The failure of participants to use email as an extended social space in which they would be able to engage in inter-subjective sensemaking, develop mutual understanding of the problem at hand, collaborate and achieve an agreement becomes evident. The major reason why this was the case is the lack of shared social norms and shared mutual expectations of behaviour related to initiation, distribution, discussion, negotiation and legitimation of school proposals. Since email was used in the restructure process as if these social norms existed, such communication gave rise to misunderstandings and drew conflicting groups further apart.

While any inter-subjective sensemaking depends on participating individuals, it is also influenced by a wider organisational context, organisational structures, norms and culture. In the case of school(s) in the field of management, three groups of academics from three former member-universities each developed their own understanding of the school formation process, including the use of email and associated norms, rights and obligation of participants in creation, negotiation and legitimation of school proposals. While guidelines said nothing about it, each group gradually developed new norms and rules about the use and meaning of email communication in the school formation process. Through face-to-face interaction, each group not only created a particular vision of the new school but also developed mutual intra-group understanding of how email would be used to communicate with other groups and generate an agreed proposal. Interestingly enough, no discussion (email or face-to-face) was ever held among these groups about the desirable and acceptable norms and rules to govern email communication and legitimation of proposals.

Nevertheless, each group assumed that their perceptions and assumptions were widely shared. The proponents of the SOM proposal, who were the first to propose a school and who used email extensively in this process, were particularly disappointed when new contradictory proposals came 'out of the blue' from other groups. They interpreted the lack of response to their email invitation to joint meetings and the small number of participants from other groups in these meetings as a sign of tacit approval of their actions; furthermore, they read the lack of response to their school proposal, distributed by email to all potential school

members, as agreement. As a result, without explicit email or personal consent, they listed such non-respondents as members in the final proposal.

Further insights into such a situation can be gained by focusing on the extra-subjective level of sensemaking, that is the organisational culture level. Different perceptions and understanding of the meaning of exchange via email by groups of academics from different member-universities can be traced back to their different organisational cultures as well as to their different group histories. Three distinct cultures can be identified. One group, from a member-university with a predominantly autocratic culture, perceived the School formation primarily as academic regrouping to amalgamate small, dispersed management groups from across member-universities based on their academic domain. Their view of the school formation process itself was a quite simple and structured process in which questions of vision, philosophy of management or teaching approaches were not discussed. The other group, from a member-university with a participative management culture, not surprisingly, had a very different view of the School formation process – as basically an innovation process with broad participation of academics from different strands of management to explore some fundamental questions of management education and seek new opportunities for academic synergies. While the process was assumed to be collaborative, based on knowledge sharing and mutual understanding, they did not expect that it would necessarily lead to a unified solution. The third group, from a member-university with a very fragmented and laissez-faire management culture, had again a different view. As a small and well-established group that enjoyed high levels of independence and self-governance, they developed a strong local professional culture. Professionally, they did not belong to a mainstream management, but were considered part of a broad management domain. Their attitude towards the school formation process was very much motivated by their desire to remain as independent as possible in any new arrangement. Therefore, they first proposed to remain a separate school in the new unified University, and when this was rejected, they looked for a group with which to merge that would be least threatening to their independence and identity.

The use of email by each of these groups was consistent with their individual management practices and cultures. Moreover, each group used email communication as an extended social space, through which they continued to reproduce their individual cultures and collective knowledge, thereby recreating their individual and collective identities. They, however, did not realise to what extent their perceptions of email communication and the nature of social space, thus created, also differed. Nor did they make any effort to understand others' attitudes. Instead, members of each group had 'good reasons' to be dissatisfied with the process for which they obviously blame others.

Some of the problems experienced in the school formation process can be explained by analysing the interaction between the inter-subjective level and the generic-subjective level of sensemaking. As UEA undertook a comprehensive organisational change, old faculty/ school structures were abandoned and the new ones were yet to be created. Old norms and rules lost their currency but new ones were not easily introduced. As a result, an important part of organisational knowledge was lost. By specifying parameters for the new schools and the 'bottom-up' process for school formation, the guidelines established social structures and rules in an attempt to ensure coherence and timeliness of the many parallel school formation processes. New knowledge created at the social structure level needed to be interpreted at the intra-subjective and inter-subjective levels as individuals were required to make sense of this new process and knowledge while simultaneously engaging in school formation.

However, the guidelines document did not specify the norms and rules for participation in the school formation process, nor did it anticipate the wide variety of constellations that academics found themselves in this process. Thus, the generic-subjective sensemaking was insufficiently specified and became a source of tension between intra-subjective and generic-subjective sensemaking. This is evident from frequent requests that academic groups sent to the Executive regarding specific conditions not defined by, or conflicting with, the assumptions in the guidelines. For instance, the number of academic staff in the management domain was about 80, distributed across four campuses. According to the

guidelines, there were three conditions for a school; that it was the smallest organisational unit, with a maximum of 45 academics, spread over two campuses at most. As explained earlier, management academics at some stage succeeded in achieving an agreement for a single SOM, provided it contained a substructure (discipline-specific departments or academic groups). As this proposal obviously did not satisfy the Guidelines' conditions, facilitators consulted the Executive requesting that specific situation in the management domain be considered and further specification of rules defined. Instead, the proposal for SOM with a substructure was rejected. From the sensemaking point of view, such an action contributed further to the tension between the inter-subjective and generic-subjective levels and subsequently worsened inter-group inter-subjective sensemaking, leading to a breakdown of communication.

Our findings confirm Sproull and Kiesler's observation that "Making it easy to exchange information through providing open access and diverse forums is a necessary but not sufficient condition for communication to occur" (1991:7). However, only through the sufficiently deep and multi-layered analysis we were able to identify conditions for genuine communication. One of the major conditions, as our analysis showed, is to provide a shared social space through electronic media, which cannot be expected to happen spontaneously. Groundwork is needed, in which shared social understandings, norms, beliefs and common language and expectations could be established.

We also found that different cultures, organisational and group identities prevented the use of email as a shared social space. While many empirical studies in the computer mediated communications literature, as Walther points out, "demonstrated that the use of email and computer conferencing reduced interpersonal affect and group solidarity" (1996:5), this study found that the converse is equally true – that interpersonal relations and group solidarity reduced the effectiveness of email. Cultural background, group and organisational history, identity and solidarity have to be examined and addressed when developing extended social space through email.

CONCLUSION

In this paper we have examined the use of email and the assumptions influencing the use of email by three conflicting groups in a School formation process within a wider university restructure. This examination was undertaken by analysis through the sensemaking model of knowledge in organisations, in which the *intra-subjective, inter-subjective, generic-subjective* and *extra-subjective* sensemaking and backgrounds that shape individual and group understanding of the use of email were investigated. Analysis through the sensemaking model highlighted that within small groups the *inter-subjectively* shaped and co-created meanings and assumptions built solidarity within several groups that prevented inter-group *inter-subjective* knowledge sharing and knowledge co-creation. Conflicting assumptions inhibited communication being built upon common meaning and shared foundations for sensemaking, and thus prohibited inter-group understanding.

This paper originally aimed to build upon foundations such as those of Flanagin and Metzger (2001) to advance understanding of organisational use of email as an extended social space through which 'the individually subjective' and 'socially constructed' are mediated, impacting upon individual and group identities and developing 'group histories' and 'social relations'. Building upon work by Yoo and Alavi (2001), it examined how the use of email enables and constrains different sensemaking processes. However, as we have seen, analysis leads us to examine the converse - that it is the individual and group identities and developing 'group histories' and 'social relations' that mediate the use of email and its usefulness as an extended social space. Similarly, it is the effect of different sensemaking processes that enables and constrains the effective use of email as an organisational tool (Weick, 1995). Such conclusions can only lead to recommendations that, in any circumstance in which an organisation wishes to rely upon electronic means of communication, particularly email, these factors are first taken into account, then common ground is established in terms of vocabulary, understanding and shared meanings, so that individual, interpersonal and organisational sense-making is all undertaken from a common base that will facilitate

understanding. Without common grounds for mutually compatible sensemaking, all 'communication', whether electronic or face-to-face, is going to run aground on the rocky shoals of assumptions and misunderstandings.

Clearly this paper contributes new understandings of email as an extended social space that both facilitates communication and constrains it by solidification of prior relationships. The use of email is presented as both an enabler and obstructor of sensemaking and in danger of assumptions. The analysis of such assumptions and relationships formed and emphasised through *inter-subjective* meaning-making, and simultaneously disrupting the communicative goals of the email use, indicate a necessity for further research into the balance between email as the constrained, and email as the constraining force. More research is required to understand the factors that contribute to the creation, co-creation and perpetuation of assumptions in electronically mediated sensemaking.

REFERENCES

Barley, S. (1986). Technology as an Occasion for Structuring: Evidence from Observations of CAT Scanners and the Social Order of Radiology Departments. *Administrative Science Quarterly*,31, pp. 78-108.

Cecez-Kecmanovic, D & Jerram, C. (2002) A Sense-Making Model of Knowledge Management in Organisations. *European Conference on Information Systems Proceedings*: Gdansk, June 2002.

Cecez-Kecmanovic, D. (2000a) Organisation is Communication: What is IT Doing There? *OASIS 2000 Workshop*: *Intersecting Issues, Approaches and Methods Down Under.* Brisbane, 9 December 2000.

Cecez-Kecmanovic, D. (2000b) "A Sense-Making Approach to Knowledge Management in Organisations", APROS Conference *Organising Knowledge Economies and Societies*, UTS, Sydney, 14-17 December.

Communication research. Vol. 23, No. 1, pp. 3-43.

Daft, R.L. & Lengel, R.H. (1984) Information Richness: A new approach to managerial behavior and organisation design. In B.M.Staw & L.L. Cummings (Eds.), *Research in organisational behavior.* (Vol. 6, pp. 191-233). Greenwich, CT:JAI.

Flanagin, A.J. & Metzger, M.J. (2001) Internet Use in the Contemporary Media Environment. *Human Communications Research.* Vol. 27, No 1, January 2001, Oxford University Press.

Fulk, J., Schmidt, J., & Steinfield, C.W. (2001) A Social Influence Model of Technology Use. In Fulk, J. & Steinfield, C. (Eds.) *Organisations and Communication Technology.* Sage: Newbury Park, CA.

Glesne, C. & Peshkin, A. (1992) *Becoming Qualitative Researchers*: *An Introduction.* White Plains, N.Y.: Longman.

Markus, M.L. (1994) Electronic mail as the medium of managerial choice. *Organisation Science, 5,* 502-527.

McCracken, G. (1988) *The Long Interview.* Newbury Park, CA: Sage.

Nandhakumar, J. & Jones, M. (1997) Too Close to Comfort? Distance and Engagement in Interpretive Information Systems Research, *Information Systems Journal*, 7, pp. 109-131.

Perse, E.M. (2001) *Media effects and society.* L. Erlbaum Associates: Mahwah, NJ.

Rice, R.E. (1993) Media appropriateness: Using Social presence theory to compare traditional and new organisational media. *Human Communication Research, 19,* 451-484.

Romm, C.T. & Pliskin, N. (1995) Virtual Politicking: Toward a theory of e-mail use for political purposes within and between organisations. In *The Handbook of Administrative Communication.* (Eds. J.L. Garnett & A. Kouzmin) Marcel Decker: New York.

Ryle, G. (1949). *The Concept of Mind*. University of Chicago Press, Chicago.

Schwartz, D.G. & Te'eni, D. (2000) Tying Knowledge to Action with KMail. *IEEE Intelligent Systems,* May/June, 2000, pp. 33-39.

Sillince, J.A.A. (1999) Guest Editorial. *Information Systems Journal* Vol. 8, No 4, Oct 99.

Sproull, L. & Kiesler, S. (1986) Reducing Social Context Cues: Electronic Mail in Organisational Communication. *Management Science*. Vol. 32, No. 11. pp. 1492 – 1512.

Sproull, L. & Kiesler, S. (1991) *Connections – New Ways of Working in the Networked Organisation*. MIT Press: Cambridge MA.

Tan, F.B. & Hunter, M.G. (2002) The Repertory Grid Technique: A Method for the Study of Cognition in Information Systems. *MIS Quarterly,* Vol. 26, No. 1, pp. 39-57.

Thomas, J.B., Clark, S.M. and Gioia, D.A. (1993). Strategic Sensemaking and Organisational Performance: Linkages among Scanning, Interpretation, Action and Outcomes. *Academy of Management Journal,* 36, pp. 239-270.

Trauth, E. & Jessup, L. (2000) Understanding Computer-Mediated Discussions: Positivist and Interpretive Analyses of Group Support System Use. *MIS Quarterly,* Vol. 24, No. 1, pp. 43-79.

Van Maanen, J (1979) The Fact of Fiction in Organisational Ethnography, *Administrative Science Quarterly,* 24, 4, pp. 339-358.

Walsham, G. (1993) Interpretive Case Studies in IS Research: Nature and Method, *European Journal of Information Systems* (4)*,* 1995, pp. 82-88.

Walsham, G. (1995) The Emergence of Interpretivism in IS Research, *Information Systems Research*, 6, 4, pp. 376-394.

Walther, J.B. (1996) Computer-Mediated Communication: Impersonal, Interpersonal, and Hyperpersonal Interaction.

Weick, K.E. (1995). *Sensemaking in Organisations*. Sage.

Weick, K.E. and K.H. Roberts (1993). Collective Mind in Organisations: Heedful Interrelating on Flight Docks. *Administrative Science Quarterly*. 38, pp. 357-381.

Wiley, N. (1988). The Micro-Macro Problem in Social Theory. *Sociological Theory*, 6, 254-261.

Wiley, N. (1994). *The Semiotic Self*. Polity Press, Cambridge.

Yoo, Y. & Alavi, M. (2001) Media and Group Cohesion: Relative Influences on Social Presence, Task Participation, and Group Consensus. *MIS Quarterly,* Vol. 25. No 3. pp 371-390.

ACKNOWLEDGEMENT

COPYRIGHT