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## **Email and workplace communication:**

### **A literature review**

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**This series of occasional papers is aimed at providing a wide range of information about the way language is used in the New Zealand workplace. The first paper outlines the aims and scope of the core project, the Wellington Language in the Workplace Project, and describes the approach adopted by the project team in collecting and analysing workplace data. Subsequent papers provide more detailed analyses of particular aspects of workplace interaction.**

**These include**

- **a description of the methodology adopted to collect workplace interaction, and its developments and adaptations to the very different demands of disparate workplaces**
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- **an analysis of the structure of formal meetings in relation to the way decisions are reached**
- **a discussion of the concept of the "gendered" workplace and its relevance in New Zealand workplaces**

- an examination of the varied literature on the role of e-mail at work
- an analysis of changes in some features of sexist language in workplace documents

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## Email and workplace communication: A literature review

### Abstract

There are increasing signs that email is not an unquestionably positive influence in the workplace. This paper outlines the growth of email over the last ten years, and summarises research on email which has relevance to the workplace. Research on the social and psychological effects of email and other forms of computer-mediated communication (CMC) is reviewed, along with discussions of the benefits of email in relation to other means of communication. The review also includes research on the role of email in workplace politics, and on styles of email communication, including gender differences in email use. The review concludes with a number of unanswered questions, indicating where further research is needed, especially in the New Zealand context.

### Introduction

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| <i>Sending them mad</i> | <i>Call for guidelines as email misuse jumps</i> |
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These two headlines, which appeared in a Wellington newspaper within a week of each other in the year 2000, testify to two of the probably unforeseen consequences of introducing email in the workplace. The first makes reference to a national survey conducted in Australia by the recruitment firm Morgan and Banks. They found that email was making work harder and more stressful rather than easier and more efficient. Furthermore, and ironically, email has been blamed for an exponential growth in the amount of office paper used. Australian Paper reported that office paper production had grown five-fold since 1983. The second headline relates to a call from the Public Service Association (New Zealand) to the State Services Commission to help departments and agencies develop clear guidelines as email misuse in the public service has reached crisis levels. This misuse may arise in part from the fact that people mistakenly perceive email to be private.

While email is a relatively recent phenomenon, it is having a major impact on many aspects of workplace life and organisation. As the headlines indicate, the effects are not all positive. Social psychologists,

communication scholars, and those working in the business, information and organisational science areas were among the first to undertake research on email and other forms of CMC. More recently, linguists have begun to take an interest in this medium which may well be the dominant interpersonal communications medium in this millennium "approaching if not overshadowing voice" (Negroponte 1995:191). This paper outlines the growth of email over the last ten years, reviews research on the social and psychological effects of email and other forms of CMC, on the benefits of email in relation to other means of communication, and on the role of email in workplace politics. Research on different styles of email communication, including gender differences in email use, is also summarised.

## **The growth of email**

Email originated as an additional feature of the first large-scale computer network ARPANET in the late sixties to enable researchers to share data. Once it became possible to send electronic messages as opposed to data files via the network, and computer-based conferencing systems developed, email growth rocketed. According to the Electronic Messaging Association in the United States (cited in Bennahum 1999:100) 8 million Americans had access to email in 1991. By May 1999, 96 million Americans were using email. In New Zealand, the pattern of growth has been similar. Figures gathered by A C Nielsen Research (personal communication) show that 16% of New Zealanders had access to the internet in 1996. This figure had increased to 56% by 1999. Their figures also show that 80% of the people who access the internet have used email.

In the workplace, managers have generally been quick to see the possibilities offered by this new communication medium. The closing years of the twentieth century saw the introduction and widespread adoption of email as a means of workplace communication. A sample of 900 people aged 13 and above, conducted recently by NFO CM Research (NZ) Ltd (personal communication) revealed that approximately 40% of people employed full time have their own internet connection at work. These rates are increasing at 2-3 percent per year. In some workplaces in the corporate world email has become the pervasive communication medium to the extent that at Microsoft for example, where probably 99% of communication takes place via email, it is said that the phone never rings (Kinsley 1996).

Email is now a fact of life in many workplaces where it has largely replaced written memos and much telephone and face-to-face interaction. While it is often incorrectly perceived as ephemeral, the role it has assumed very recently - and very quickly - of being an important means of workplace communication is likely to be anything but ephemeral.

## **Social and psychological aspects of CMC**

Research investigating the social and psychological aspects of CMC was underway as early as the 1980s (eg. Kiesler, Siegel and McGuire 1984, Rice and Love 1987). The technological nature of the medium has been seen as the main cause of many negative outcomes such as depersonalisation, impoliteness and 'flaming'. This is because email filters out certain personal, social and behavioral cues used by people when they engage in face-to-face communication, e.g. voice and body language cues. However there are also positive effects. The cultural conventions that normally guide social interaction are frequently missing in CMC and this has significant effects on people's behaviour.

Clues to the social status of participants are often missing, altering normal patterns of dominance, sometimes with beneficial outcomes. In one study, for example, use of CMC meant that group dynamics changed: members participated more equally and high status members did not dominate the interaction to the same extent as in face-to-face meetings (Kiesler, Siegel and McGuire 1987). CMC has also been shown to have noticeable effects on communication efficiency, but not necessarily in the direction one might predict. Computer-mediated groups took longer to reach consensus than face-to-face groups for example, although they were just as task-oriented (Kiesler, Siegel and McGuire 1987).

Following up these findings, Sproull and Kiesler (1992) introduced a two-level framework for thinking about technology changes in organisations. They use the term "first-level effects" for the anticipated technical changes email offers, i.e. the possibility for improved communications, greater efficiencies and productivity gains. The "second-level" or social system effects, are those that come about mainly because "new communication technology leads people to pay attention to different things, have contact with different people and depend on one another differently....Patterns of information exchange are changed. So are working and social relationships. Thus social [and organizational] structure is changed" (Sproull and Kiesler 1992 :3). Two behavioural changes likely to occur in a networked organisation are:

- new connections among peripheral workers and
- different patterns of control.

By increasing organizational participation and personal ties, CMC can reduce the isolation of socially and physically peripheral workers and lead to greater commitment; but increased information exchange can pose problems of authority, control and influence.

Other researchers have also addressed the social effects of email. "Managers focussing only on the productivity benefits of email may fail to anticipate the larger social consequences" (Weisband and Reinig 1995: 43). The headlines at the beginning of this paper illustrate at least two of these, namely, unwanted or inappropriate forms of communication, as well as worker stress from too much information, and being expected to reply quickly. This latter effect was identified in my own research in one Wellington workplace (Waldvogel 1999). Nearly half of those surveyed also felt that email had brought about a reduction in personal contact. Another stress-creating factor identified in the literature is "aggressive accountability with its 'documentation' mania, or the tendency for even simple verbal requests to have to be put in writing - the CYA (cover your a..) syndrome (Markus 1994b: 142).

Related to social consequences is the whole issue of privacy, with its attendant human rights complications. In Britain, regulations have been drafted which give management the right to "snoop on" employee's emails and telephone calls without their consent to find out whether they are business-related or just gossip (Taranaki Daily News: 5 October, 2000). A TVNZ Paul Holmes programme (12 October 2000) suggests that this is becoming a major issue in New Zealand workplaces too.

Two theoretical perspectives, other than technological determinism, have been used to explain the observed negative social effects of email. These are emergent process theory and rational actor theory. The emergent process perspective argues that negative outcomes may originate in the actions people take to achieve or prevent negative effects and ensure positive outcomes (Douglas 1986, cited in Markus 1994b:124). As an example, people may deliberately choose to use email to avoid face-to-face interaction with disliked or feared colleagues. The rational actor perspective suggests that even if people are aware of a downside to what they are doing, they will continue to act in this way because they believe the pluses of their action outweigh the minuses. At the same time, however, they will actively try to minimize the negative consequences of their actions (Markus 1994b). Markus found users selected email deliberately when they wanted to avoid unwanted social interactions but they also took steps to avoid negative outcomes. She uses the example of managers who carefully worded their email messages and also used the telephone from time to time to maintain personal relationships. Interestingly, her results imply that negative social effects from using CMC may not be easy to eradicate.

The rational actor perspective enables us to view email as a tool. Like all tools, a certain amount of judgment needs to be exercised about when to use it, and it needs to be handled with care. By so doing we can profit from the many very real advantages email offers over other forms of communication while at the same time minimising its negative effects.

## Media choice

Why people choose one communication medium over another and how they perceive the effectiveness of different forms of communication is an area of research that has received considerable attention in the business and communication sciences area.

### ***Media richness theory***

Media richness theory first proposed by Daft and Lengel in the 1980s has been one of the more influential theories of media choice. Media richness refers to the ability of different media to convey messages that communicate rich information. Richness is defined as "the capacity to share meaning" (Daft & Lengel 1984 cited in Gattiker 1992:70). The richness of any medium is therefore determined by the extent to which features such as feedback, multiple cues, language variety and personal focus are present. Communication channels can be arranged on a continuum with face-to-face communication at the very rich end because this gives the greatest possibility of sender and receiver sharing meaning. The assumption is that email is low in information richness.

Media richness theory proposes that the greater the likelihood of a message being misinterpreted, the greater the need for rich media. The theory suggests that choosing a medium which matches the task is likely to lead to the most effective outcome. Inherent media characteristics are regarded as making particular media more or less appropriate to a task. Effective managers are those who use the most appropriate medium for the task.

More recently, however, this theory has been questioned. Research results have contradicted the theory's predictions, and a number of studies have attempted to explain how a "lean" medium, email, can nonetheless produce rich information. Markus found that managers perceived various media in ways that were relatively consistent with information richness theory, but that they used email more and differently than the theory predicted. "In particular, effective senior managers were found to use email heavily and even for equivocal tasks" (Markus 1994a: 502ff). The results suggested to her that "the adoption, use and consequences of media in organisations can be powerfully shaped by social processes such as sponsorship, socialisation and social control which require social perspectives to understand them" (1994a: 502ff).

This suggestion is consistent with institutionalisation theory, which proposes that patterns of technology use are established initially through the ways in which they are supported by key members of the organisation. The patterns are then continued by socialisation of new members and social control of deviants. One example she cites involved an organisation where email use fell off considerably with the arrival of a new CEO who did not know how to use it. She notes:

the apparent discontinuation of what had been a well-established behaviour indicates that email use was a collective behavioural response to a socially constructed definition of the medium's appropriateness (Markus 1994a: 502ff).

The idea that social as well as rational factors influence media choice is also supported by Schmitz & Fulk (1991), Webster and Trevino (1995), and Ziv (1996). This is an area where more research is needed.

### ***How does Email convey "rich" information?***

Another approach to the issue of how email conveys "rich" information emphasises the role of the message recipient as an active constructor of meaning, and points to the cognitive processes of pattern matching, anchoring and adjustment (Huang, Watson and Wei 1998). In other words, rich communication is possible because people interpret an email message by using their own knowledge of the issue and the people relationships involved. Critical Social Theory has also been used as an explanation: human beings are not mere receptacles of the meanings transported to them via a medium, but rather actors who create the meanings they come to hold. Ngwenyama and Lee (1997) applied Critical Social Theory to investigate the

managerial use of email in a company. The people or actors concerned tried to understand a message by contextualising it within the institutional arrangements in which they found themselves. They also critically assessed its validity or rightness, and checked back if there were areas of uncertainty.

Using a phenomenological approach, Williams (1999) examined how 10 e-mail recipients constructed meaning from an electronic text within an organisation. He found that messages were interpreted by integrating e-mail with other knowledge: threads of conversations, knowledge of organisational processes and procedures, the message type, the recipient sender-relationship, message header information and the organisational role of the recipient.

#### ***Perceptions of Richness***

Another aspect of media richness theory is the way in which people perceive the relative richness of different media. Using channel expansion theory and the results of their own research, Zmud and Carlson (1999) argue that the more experience and knowledge people have in using a medium of communication, the richer they consider it to be and the more effectively they are able to communicate in it. The theory identifies certain experiences as being important in shaping how an individual develops "richness perceptions" for a given channel. These include people's prior experiences with:

- the relevant medium (in this case email)
- communication partners
- messaging topics
- their organisational context.

Gaining more relevant experience and knowledge in each of these areas, particularly the first two, may enable communication participants to both encode and decode messages in a channel more effectively. People who are able to participate in increasingly rich communication via the channel will correspondingly perceive the channel as becoming increasingly rich.

This research suggests that there is less danger of email messages being misunderstood if the communication partners know each other and the organisation well, and have an appreciation of the capabilities of the medium. Where these conditions do not exist, unless the message is very clear, it may be better to choose a different mode of communication, or to use email alongside other forms of communication.

The research outlined above has identified issues which arise in email communication between members of the same organisation, where it is reasonable to assume fairly similar frames of reference. This suggests that even more complex problems may be involved in email communication between people who operate with different cultural, linguistic, social and/or organisational frames of reference. What meanings are conveyed by email in such contexts? How do communication participants make sense of each other's messages? To what extent does miscommunication occur? Where is the miscommunication located? These are all questions that offer further fruitful lines of enquiry to the researcher.

#### **Email and workplace politics**

The role of email in promoting democracy in organisations and in organisational politics has also been examined. It has been claimed that email gives a voice to the voiceless and reduces status imbalance (Sproull and Kiesler 1992, Bishop and Levine 1999). However, experimental studies show that status differences persisted in both face-to-face and electronic groups (Weisband, Schneider and Connolly 1995). The view that computer-mediated communication is inherently apt to support democracy in organisations has been challenged by Mantovani (1994). He argues that email is best viewed as neutral in terms of its organisational consequences; it is the social context in which it is applied that determines whether or not it

fosters democracy.

Giving a voice to the voiceless does not always produce positive effects from the point of view of an organisation. Email can and has been used to support disruptive organisational politics. Romm and Pliskin (1997: 95) used the term "virtual politicking" to describe this use. Their virtual politicking model brings together data from a series of real-life incidents in which email was used for political manipulation within and between organisations. It makes two assumptions:

- virtual politicking is deliberate and purposeful behaviour
- email may be used by employees for purposes that conflict with management's intentions when implementing the technology.

Their data suggests the following four features of email are particularly relevant to its political potency:

- speed - email messages can reach their destination in a relatively short time enabling, for example, meetings to be set up quickly and without the knowledge of all interested parties
- multiple addressability - one individual can contact large groups of individuals within and outside the organisation
- processing - the ability that a receiver has to store and manipulate a message before sending it on. Comments can be added or deleted thus turning neutral messages into politically explosive ones.
- routing - the ability the sender has to control where the message is sent. This feature enables senders to send slightly, but significantly, modified messages to different groups of email users.

The more insidious and far-reaching impact of e-mail on organisational power relations, knowledge and employee behaviour has been demonstrated by Brigham and Corbett (1997). They conducted an in-depth case study of a large UK company where IT applications were adopted to develop a different management culture. While structural changes brought about considerable decentralisation, which appeared more democratic, central power was in fact strengthened as the new technologies enabled the centre to access information immediately, and thus make employees more accountable. At the same time, the filtering and transformation processes that occurred as information was transmitted from one centre to another meant that management was now basing its key decisions on simplified information that was no longer neutral. Employees were affected too. Email had a disciplinary effect as managers were able to monitor work more easily, thereby increasing accountability, while human interaction became an option rather than a necessity.

Bishop and Levine (1999) described how employees in one large company used CMC with the aim of changing management policies. In their view networked companies are facing the trade-off "between the power of the computer to facilitate communication and raise productivity, and the shifts in group cohesiveness brought on by CMC" (1999:215). CMC has also made it easier in large organisations for different groups of employees with common interests to find each other and to communicate. This may have the effect of increasing workers' commitment to their company, thereby making them more effective in achieving management's goals, an effect also noticed by Sproull and Kiesler (1992). Bishop and Levine (1999) show that CMC also raises effectiveness in achieving goals chosen by the employers themselves. Having a voice however, does not guarantee having ears. Where management gives only the illusion of listening, conflicts and tensions are more likely than any efficiency gains

Thus in terms of organisational politics, it would seem that email again has both negative and positive effects. It enables information to be sent very quickly to large groups of people and can if necessary, galvanise them into action. It can also make people on the periphery of the organisation feel included. On the other hand, the centralisation of information and its dilution and transformation as it goes up the hierarchical chain may create a dangerous distance between the information providers, the decision

makers, and the people on whom the decisions will impact.

### Email and style

Email has provided a new way for people to communicate; but is it speech or is it writing? Although it does provide a permanent record, email is often perceived as being ephemeral and used instead of telephone or face-to-face conversations. This, and its apparent intimacy, may also be the reason it fosters more self-disclosure. Linguists have made contributions to the analysis of email style. Email has been compared to spoken and written data bases (Collot and Belmore 1996, Yates 1996). Collot and Belmore concluded that "the genres which (electronic language) most closely resembles are public interviews and letters, personal as well as professional" (1998:149). Yates, emphasising the heterogeneous character of electronic messages, noted that CMC is affected by "the numerous social structural and social situational factors which surround and define the communication taking place." (1996:46)

A model of email as a type of Creole has been proposed by Baron (1998:164-165):

When the linguistic profile of email is compared with those of other evolving communicative systems, it becomes clear that the seemingly schizophrenic character of email reflects ongoing creolization. ...The creolizing character of email is further defined by its changing scope of uses and usership.

Email has also been described as a hybrid language that has arisen as an amalgam of components taken from other language varieties: postcardese, headlines and telegraphese (Ferrara, Brunner and Whittemore 1991: 12). Because minimalism seems to be developing as the preferred style, Mulholland (1999) has warned that this could damage interpersonal relations.

My own exploratory research at one Wellington workplace showed the 'speech or writing' ambivalence that people have towards email (Waldvogel 1999). Approximately half of a sample of 50 emails studied showed the care in composition that is normally given to a permanent written document. The other half had typos, punctuation and spelling errors, missing capitals, split lines, a mix of upper and lower case letters, and faults in construction. This split in stylistic approach was also reflected in people's comments. Many lamented the sloppiness and lack of clarity of many email messages, while others commented positively on its simpler, more informal, more abbreviated and more direct language. A number stated that they were careful in writing their emails or felt that it made them more thoughtful about their use of language. Some felt it was a showcase of their ability to communicate.

The way people sign their emails has also been studied. Since the sender is identified at the top of the email, signing off is strictly speaking redundant. Sherblom (1988) who studied the email files of a large organisation found, however, that relative social position in the organisational hierarchy influenced their use. None of the messages sent down the organisational chain were signed, while a third of those sent up were. My own findings in a small sample of 49 emails, showed quite a different pattern. Nearly all the women (97%) and most of the men (87%) who sent messages up the hierarchical chain used some sort of sign-off. Five of the six people who sent emails down the chain signed them off with their name. The greater use of signing off in this workplace may be the reflection of a more collegial atmosphere or the more egalitarian New Zealand attitude (Waldvogel 1999).

Is email changing the way we use language and especially the written language? Many people view email as an informal means of communication in which mistakes do not matter. Will this attitude carry over into other written forms of communication or will other interests prevail? A number of British firms are now finding that while they are doing more and more business online, they are not able to get their message over as well as when they used the telephone or face-to-face interaction. Some are now spending thousands of pounds teaching staff how to write (*Guardian TEFL Supplement* August 2000). Initiatives



such as these, arising from the need that still exists in the electronic age for effective communication, may lead to the emergence of an email genre that has usage conventions more akin to formal writing than to conversation. Treating email as a form of speech may impede communication and be very costly both in human and financial terms.

### **Gender and email**

Linguists have also shown that many of the gender differences found in face-to-face interaction carry over into CMC and, if anything, are accentuated (Talbot 1998). This research largely undermines the view that email is a democratic medium enabling people to be judged on the basis of what they say rather than who they are. There is evidence that women and men communicate in different ways on the net. A study of two academic listserv groups conducted by Herring (1996b: 82) revealed that:

both men and women structure their messages in an interactive way, and that for both, the pure exchange of information takes second place to the exchange of views. Significant gender differences are found in how electronic messages are oriented.....Although messages posted by women contain somewhat more interactional features they are also more informative, in contrast with male messages which most often express (critical) views.

Herring found that while women value politeness, men operate in accordance with competitive values which result in violations, including flaming, of conventional politeness norms. Men dominated the 'talking' time. They participated at a higher rate than their numerical representation justified, and their messages were considerably longer. They took little interest in what women had to say, which seems to have resulted in a decline of female participation. In this supposedly liberal academic environment, CMC was found to be male-dominated, power-based and hierarchical.

Herring's findings were confirmed by Hall (1996) who found that the electronic medium intensified rather than neutralised evidence of gender differences in the style of the message. Other research has suggested that without knowing the author, a close look at the style of an email will enable you to predict their gender with a reasonable degree of accuracy (Thomson and Murachver 1999).

### **Conclusion**

The revolutionary changes email is bringing about in the workplace have been likened to those brought about by the introduction of the typewriter. Email has enabled the easy, reliable, rapid and inexpensive transmission of information to large numbers of people at the same time, and offers access to people and at times precluded by face-to-face communication. More information does not, however, mean better information and information overload is becoming a major email-related issue. While email has the potential to be a democratizing medium, the research related to gender issues and organisational politics tends to support Mantovan's view that the effects depend on the social context in which it is used. The medium is only one small component of the message which is largely constructed by the communication participants operating within a certain social and organisational context. Because email lacks many of the cues present in other communicative forms it is open to wide interpretation. Where it is used indiscriminately and without the discipline and thought that goes into other forms of written messages, it can generate bad feeling and result in ineffective communication.

Very little research has been done to date on the impact of email usage in New Zealand. It is difficult even to discover how widely email is used in New Zealand workplaces at present. This information does not seem to be available in the public domain. We have apparently taken this electronic giant on board without actually knowing very much about it. If this medium and the far-reaching consequences of its widespread adoption are to be better understood, on-going research, including research in the New Zealand context, is essential. Linguists and applied linguists clearly have much to contribute to this research.

## References

- Baron, Naomi S. 1998. Letters by phone or speech by other means: the linguistics of email, *Language and Communication* 18,2: 133-170.
- Bennahum, David S. 1999. Old email never dies, *Wired* May 1999: 1-11.
- Bishop, Libby and David I. Levine 1999. Computer-mediated communication as employee voice: a case study, *Industrial and Labor Relations Review* 52,2: 213(2).
- Brigham, Martin and Martin J. Corbett 1997. E-mail, power and the constitution of organisational reality, *New Technology, Work and Employment* 12,1: 25-35.
- Collot Milena and Nancy Belmore. 1996. Electronic language: a new variety of English. In Susan Herring (ed) *Computer-Mediated Communication: Linguistic, Social and Cross-cultural Perspectives*. Amsterdam: John Benjamins, 13-28
- Daft, Richard L. and Lengel Robert, H. 1984. Information richness: a new approach to managerial behaviour and organizational design. In Larry L. Cummings and Barry M. Staw (eds) *Research in Organizational Behaviour* 6. Greenwich, CT: JAI Press, 191-233.
- Douglas, Mary 1986. *How Institutions Think* Syracuse, NY: Syracuse University Press.
- Ferrara, Kathleen. Brunner, Hans. and Greg Whitemore 1991. Interactive written discourse as an emergent register, *Written Communication* 8,1: 8-34.
- Gattiker, Urs (ed) 1992. *Technology-Mediated Communication* Berlin: Walter de Gruyter.
- Hall, Kira 1996. Cyberfeminism. In Susan Herring (ed) *Computer-Mediated Communication: Linguistic, Social and Cross-cultural Perspectives*. Amsterdam: John Benjamins, 146-170.
- Herring, Susan (ed) 1996a. *Computer-Mediated Communication: Linguistic, Social and Cross-cultural Perspectives*. Amsterdam: John Benjamins.
- Herring, Susan 1996b. Two variants of an electronic message schema. In Susan Herring (ed) *Computer-Mediated Communication: Linguistic, Social and Cross-cultural Perspectives*. Amsterdam: John Benjamins. 81-105
- Huang, W., Richard T. Watson. and Kwok K. Wei 1998. Can a lean e-mail medium be used for rich communication? A psychological perspective *European Journal of Information Systems* 7,4: 260-274.
- Kiesler Sara, Jane Siegel and Timothy W. McGuire 1987. Social psychological aspects of computer-mediated communication. In Ruth Finnegan, Graeme Salaman and Kenneth Thompson (eds) *Information Technology: Social Issues. A Reader*. Seven Oaks: Hodder and Stoughton (in association with the Open University), 247-262.

### OP3: Email and Workplace Communication: A Literature Review

- Kinsley, Michael. 1996. The morality and metaphysics of email. In *Forbes* Dec 2 (Suppl S):113 ff.
- Mantovani, Giovanni 1994. Is computer-mediated communication intrinsically apt to enhance democracy in organisations?, *Human Relations* 47,1: 45-59.
- Markus, M. Lynne. 1994a. Electronic mail as the medium of managerial choice *Organisation Science* 5,4: 502-506.
- Markus, M. Lynne. 1994b. Finding a happy medium: explaining the negative effects of electronic communication on social life at work, *ACM Transactions on Information Systems* 12,2: 119-49.
- Mulholland, Joan 1999. E-mail: uses, issues and problems in an institutional Setting. In Francesca Bargiela-Chiappini and Catherine Nickerson (eds) *Writing Business: Genres, Media, and Discourse*. New York: Longman, 57-84.
- Negroponte, Nicholas 1995. *Being Digital*. New York: Knopf.
- Ngwenyan, Ojelanki K. and Allan S. Lee 1997. Communication richness in electronic mail: critical social theory and the contextuality of meaning, *MIS Quarterly* 21,2: 145-167.
- Rice, Ronald E. and Gail Love 1987. Electronic emotion, *Communication Research* 14, 85-108.
- Romm, Celia T. and Nava Pliskin 1997. Toward a virtual politicking model, *Communications of the ACM* 40,11: 95-100.
- Schmitz, Joseph and Janet Fulk 1991. Organizational colleagues, information richness and electronic mail: a test of the social influence model of technology use, *Communication Research* 18: 487-523.
- Sherblom, John 1988. Direction, function, and signature in electronic mail, *Journal of Business Communication* 25,4: 39-54.
- Sproull, Lee and Sara Kiesler 1992. *Connections: New Ways of Working in the Networked Organisation*. Cambridge. Cambridge University Press.
- Talbot, Mary 1998. *Language and Gender*. Oxford: Polity Press.
- Thomson, Rob and Tamar Murachver 1999. Predicting gender from electronic discourse. Paper presented at the Thirteenth Linguistics Conference of the Linguistics Society of New Zealand, 24-26 November 1999, Massey University, Palmerston North.
- Waldvogel, Joan 1999. Email: user perceptions and aspects of its role and impact in one Wellington workplace. Unpublished MA research project, Victoria University of Wellington, New Zealand.
- Webster, Jane and Linda K. Trevino 1995. Rational and social theories as complementary explanations of communication media choices: two policy-capturing studies, *Academy of Management Journal* 38,6: 1544-1572.

### OP3: Email and Workplace Communication: A Literature Review

Weisband, Suzanne P. and Bruce A. Reinig 1995. Managing user perceptions of email privacy, *Communications of the ACM* 38,12: 40-47.

Weisband, Suzanne P, Sherry K. Schneider, Terry Connolly 1995. Computer-mediated communication and social information: status salience and status differences, *Academy of Management Journal* 38,4: 1124-151.

Williams, Eric. 1999. E-mail and the effect of future developments, *First Monday* 4,8. [http://www.firstmonday.dk/issues/issue4\\_8/williams/](http://www.firstmonday.dk/issues/issue4_8/williams/).

Yates, Simeon 1996. Oral and written linguistic aspects of computer conferencing: a corpus based study. In Susan Herring (ed) *Computer-Mediated Communication: Linguistic, Social and Cross-cultural Perspectives*. Amsterdam: John Benjamins, 29-46.

Ziv, Oren 1996. How using email can reflect technological and organisational change. In Susan Herring (ed) *Computer-Mediated Communication: Linguistic, Social and Cross-cultural Perspectives*. Amsterdam: John Benjamins, 243-263.

Zmud, Robert W. and John R. Carlson 1999. Channel expansion theory and the experiential nature of media richness perceptions, *Academy of Management Journal* 42,12: 153(1).

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