ELECTRONIC MAIL: AN INTRODUCTION AND OVERVIEW

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INTRODUCTION

"Electronic mail is a totally new medium of communications ... To judge it as an alternative to the telephone or telex or carrier-pigeons is to miss the point ... its real strength lies in its ability to provide management with all the information it needs about everything that is happening everywhere, the direction in which other members of management are thinking and blow-by-blow accounts of decision-making processes, all without recourse to the telephone or interminable meetings." (Sharp, p.81)

Ian Sharp's recent assessment of electronic mail, while overly global in perspective to some, dramatizes the fundamental importance of this new communications technique to the future of information management. Electronic mail represents the first wave of a process which will reorganize group interactions of many kinds.

Samuel Morse, the unrecognized parent of electronic mail, tapped out his provocative first message in 1844 fusing electricity with the naturally insatiable human need to interact. From telegraph, to telephone, to telex, to word processing, we sit, over a century later, with the challenge of shaping the next stage of electronic communications. The enormity of this challenge can best be perceived in the speed and pervasiveness with which our words will be created, disseminated, archived and digested. Those of us who have devoted our careers to the management of words have a critical stake in the design and development of these messaging systems.

DEFINITIONS

A review of the literature will reveal two conflicting definitions of electronic mail or electronic messaging systems

(EMS). On one hand, analysts have viewed these systems as simple and isolated alternatives to the memo, the telex or the brief telephone message. With this viewpoint, the simple and isolated personal file/messaging system mimics the disarray of the deskfile, with all the facts and vital documents lost therein, effectively denying the connections with information management. A second perspective identifies electronic messaging as a component of information management activities, as illustrated by:

- text generation
- document storage and retrieval
- activity management software
- personal file management
- access to external data bases of all kinds

If the stand alone version of electronic mail is installed without regard for information management principles huge, disorganized, uncontrolled files will undoubtedly emergy providing no benefit to either individuals or organizations.

FEATURES AND BENEFITS

If implemented according to standard information management practices, electronic mail can provide substantial benefits not only in efficient information interchange, but also in increased productivity. It is estimated that approximately 60% of a scientist's time and approximately 80% of a manager's time is spent in communications (Panko, "Office" p. 268-269). Tapscott and MacFarlane report that the introduction of such systems would result in a 2 hr./day saving in managerial time (Tapscott and MacFarlane, p. 11). This alone would offset the recent trend of a low 1.3% annual increase in office efficiency (Panko, "Office", p. 265). This will be realized from the following key features and benefits of EMS:

Features

- increased delivery speed
- distance independent
- non-simultaneously interactive
- capable of word processing and data processing
- communications links for remote processing
- software for automating work functions

Benefits

- increasingly cost effective
- improved communications patterns
- facilitates organizational response to change
- consistent with integrated systems approach
- streamlining business functions

PROBLEMS

As promising as EMS appears to be, there exists critical problem areas as yet unresolved and/or ignored. From the stance of information managers, these problems fall under three major headings:

- Technical,
- Administrative, and
- Psycho-socio-political.

As will be seen, some of the problems overlap with more than one heading. The principal part of the technical category deals with standardization. In particular, standards of EMS are applied to interconnection, portability, message structure, address identification and user interface (Panko, "Standards", p. 183). In addition, another technical concern is supporting the storage and retrieval demands of increasing expanding textual files. Closely related to the support of large document data bases are the administrative concerns of monitoring organizational processes and fulfilling the organization's long term data resources needs. As Tapscott and MacFarlane remark, "there is no adequate methodology or way of assessing the automation needs of an organization, designing and implementing systems which correspond to those needs, and measuring their effects." (Tapscott and MacFarlane, p. 14). What may in fact be prescribed here is the role of an institutional Data Base Administrator, a position in which CAIS members may ultimately find themselves. Moving towards the psycho-socio-political category, we find a number of interrelated concerns such as:

- regulatory issues
- security/privacy
- labour displacement
- system/user interaction
- restructuring of communications patterns
- alterations of work environments

These last two points, perhaps having the most widespread appeal reflect the impact of change on personal communicating styles and the inevitable concatenation of the work and home environments. Obviously many of these developments warrant further independent investigation, but in general they point to different factors influencing future systems design. For the first time in system development, productivity and cost/energy savings, while important, take second place to qualitative concerns. The focus and motivation for EMS (and office automation as a whole) is not productivity oriented but rather "quality of working life" oriented. It would appear that the goal of EMS resembles that of information retrieval where the ideal is not maximum recall but maximum precision. It is at this point that "software integrity and quality of content merge." (Grande, p. 4.)

CONCLUSION

In summary, nothing can be a more pervasive determinant of a culture than how its people use words. EMS must be thought of in its broadest social, psychological and political contexts, and must be an integral part of data resources management.

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