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The Reality of Meetings and Use of Electronic Meeting Tools

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Today's effective organizations bear little resemblance to the multi-layered hierarchies of yesteryear. In particular, their ability to compete hinges on the ability to work in efficient and effective groups. Central to the performance of group work is the ability to communicate effectively. Meeting management studies have reported on the way that managers communicate since the early 1960's. The general consensus is that an increasing percentage of a managers total time is spent communicating. The greatest majority of this total time is spent in oral communication, in presentations and meetings of varying shapes and sizes.

The management literature offers a number of normative models for conducting effective meetings (Klein, 1987; Likert, 1974; Mozvick and Nelson, 1987). Unfortunately, non-existent agendas, domineering participants and unclear objectives make much of this meeting time unproductive (Mozvick and Nelson, 1987). Translated into dollars these losses in group productivity represent a substantial loss of company revenue. Johansen and Swigart (1994) demonstrate the growing importance of teams in what they call a "nimble and fluid *fishnet* organization" - a flexible structure of temporary ad hoc hierarchies and cooperative alliances - and the power of *groupware* to enable them to adapt to rapidly changing circumstances. Groupware ranges from collaborative writing tools to electronic meeting support (EMS) technologies. We focus here on electronic meeting systems (EMS).

Meeting Management Studies

In total, some fifty meeting management studies have been conducted over the years using a variety of data collection techniques (Martinko and Gardner, 1990; Rice and Shook, 1990). The most recent survey was conducted by Panko (1992), who reports that managers spend an average of 85% of their day reading, writing, talking face-to-face and on the phone. Sixty percent of their time is spent in oral communication and 25% is spent in written communication.

Two frequently reported surveys of manager's communication activities were conducted by Mozvick and Associates (1987) over a period of five years from 1981 to 1986. Survey I reported on 230 survey responses and survey II reported on 720 survey responses from managers and professionals in the high technology industry. The most significant findings was the high percentage of time spent by technical professionals and managers in organizational communication and the high importance they placed on small group meetings. Eighty-two percent of their total work time was spent in communication activities. Approximately 55% is spent in oral communications and approximately 27% is spent dealing with written communication.

Ideally an EMS should add value to the organization through improved group effectiveness and efficiency, enhanced decision quality and increased satisfaction with process and outcome. Dennis and Gallupe (1992) report that field studies have generally shown that EMS has been able deliver these benefits to organizations using them. There are some exceptions. Kettelhut (1994) for example, reports that one large corporation discontinued EMS use and another dismantled its electronic meeting room. In a similar vein, George, et al. (1992) reported on a failed implementation at a US government facility. Despite these exceptions, the potential of these technologies suggests widespread adoption should occur. However, there is evidence that acceptance has been slow (Kraemer and King, 1988; Beauclair and Straub, 1990). One of

the reasons may be that EMS are typically marketed as "decision making" tools, and previous research suggestsmany meetings are not focused on decision making (Mozvick and Nelson, 1987; Panko and Kinney, 1995).

Research Method

Over a period of eighteen months, 192 part-time MBA students enrolled in the introductory MIS course at two North American universities were administered a modified version of Mozvick and Nelson's communication activities audit. In all, 136 questionnaires were returned. This represents a 70% response rate. Of the 136 returned surveys, 133 were useable, for an effective response rate of 69%.

Survey

The authors modified the Mozvick and Nelson (1987) Communication Activities Audit to include an assessment of the use of electronic tools. First, descriptions of three electronic meeting support scenarios suggested by DeSanctis and Gallupe (1987) were added. Consistent with DeSanctis and Gallupe, each textual description was accompanied by a graphical representation of the scenario for greater clarity. These three electronic meeting settings were: face-to-face, local network and geographically remote. Next, the questionnaire was modified to include questions about the use of presentation materials and meeting support tools. The modified questionnaire was Table 1: Job Category (n = 133)

Job Category	Frequency	Percent	Job Category	Frequency	Percent
R & D	17	12%	Manufacturing	5	4%
Marketing	14	11%	IS/Data Processing	8	6%
Administrative	26	19%	Education	6	5%
Financial/Acct'g.	17	12%	Nursing	5	4%
Sales	13	10%	Engineering	14	11%
Quality/Process	4	3%	Unclassified	4	3%

tested for clarity and understanding by administering it to 5 MBA students. No revisions were necessary based on their feedback. Data reported in this paper was collected from November 1994 through April 1995. Data collection is ongoing bringing total number of respondents to approximately 200.

Sample

Three different management and technical/professional ranks were sampled. Twenty-three represented senior management, 37 middle management, 65 lower management. Two were clerical employees. Six respondents did not classify themselves along this dimension. Sixty respondents are managers, while 63 are technical professionals. There are 53 women and 80 men in the subject pool. The subjects achieved a relatively high education level. One respondent completed high school, 19 completed 1-2 years college, 85 hold a bachelor's degree, 25 hold a master's degree and three hold a doctorate.

The breakdown of subjects by job category shown in Table 1 shows a strong representation of both technical (engineering, IS, R & D, manufacturing, quality/process materials control) and administrative (marketing, administrative, financial/accounting and sales) categories. Professions (education and nursing) were less well represented.

All respondents are employed full-time and reported on their communications experiences in their **work** environment. Respondents have an average of 11.45 years of full-time work experience. They have been with their present company an average of 5.6 years and served in their present position an average of

approximately 3 years. These demographics are indicative of an experienced workforce, relatively evenly distributed across job categories, management levels, education levels and gender.

Results

Taken as a whole, respondents report spending an average of 86% of their total time in communication activities. Of this, Table 2 shows that 49% of their total time is spent in meetings. An additional 7% of their time is spent preparing for and making presentations. Taken together, these activities account for 56% of the manager's total time.

Person-to-person communications (dyads) were the most important communication activity in which managers spent 32% of their time. This includes 14% spent in telephone communications. Small group meetings are ranked third most important and account for 11% of the average managers' total time at work. Large group (7 or more people) activities ranked 7th in order of importance and account for only 6% of total time. This is particularly interesting, especially in light of the fact that EMS are reported to be most effective in large groups (Gallupe, et al. 1992).

The majority of EMS research reports on decision making activities. However, meeting management research has shown that the purpose of meeting is often other than decision making (Panko 1993). Current results confirm Panko's findings. Table 3 shows the types of meetings in which managers are engaged and the average length of time they spent in those meetings.

Interestingly, a substantial number of meetings are not focused on decision making. For example, while respondents reported they congregate with 6 or less participants in an average of 9.22 decision making meetings (evaluation, planning and negotiation) per week, they also report participating in an average of 5.88 non-decision making meetings (information gathering, training, idea generation, other). On the other hand, they hold an average of 1.52 decision making and 1.31 non-decision making meetings of 7 or more participants each week. Large meetings last significantly longer than small meetings, even though there are fewer of them. Large idea generation meetings, in particular, are reported to last almost three times as long as their small meeting counterpart. We feel this may be where serial processing occurs in traditional non-computer-supported meetings, and where the parallel processing features of an EMS could be particularly useful.

The total percentage of meetings in which electronic tools are used is very low. Given that Beauclair and Straub (1990) reported approximately 10% of the organizations surveyed were using or planning to use an electronic meeting system, we see minimal use reflected in the Table 2: Importance Of and Time Spent Communicating (n = 133)

Rank	Communication Activity	% Time
1	Making business-related person-to-person communications	18%
2	Making business-related telephone communications	14%
3	Preparing for/engaging in small group meetings (3-6 people)	11%
4	Writing, dictating letters, document, papers	11%
5	Preparing for/making managerial and technical presentations	7%
6	Reading, reviewing, letters and other documents	11%
7	Preparing for/engaging in large group meetings (7 or more)	6%

8	Reading, reviewing electronic mail communications	4%
9	Writing electronic mail communications	3%
10	Searching for, reading reviewing internet information	1%
Total Time Spent in Communication Activities		**86%**
Time Spent in Non-Communication Activities		**14%**

Table 3: Meeting Types and Length by Group Size

Meeting Type	Small Group (3-6)		Large Group (7 or more)	
	Meetings per Week	Length in Minutes	Meetings per Week	Length in Meetings
Evaluation	3.76	60	.69	79
Planning	4.37	70	.64	90
Negotiation	1.09	57	.19	70
Information Gathering	1.49	49	.32	66
Training	.96	143	.53	180
Idea Generation	2.62	55	.27	143
Other	.81	30	.19	15

current results. When asked what types of meeting "tools" were used in small and large meetings, respondents reported that electronic tools, i.e., tele-conferencing, video-conferencing, face-to-face EMS, local network EMS, or geographically remote EMS, were used in approximately 14% of all small meetings. and approximately 9% of large meetings. Use of electronic meeting systems accounts for only 4% and 3% respectively of all small and large group meetings.. Respondents indicated they spend an average of 6.8% of their work week reading and writing e-mail.

Discussion

This paper gives an overview of types and duration of organizational meetings. It is evident that meetings are a constant and growing feature of the work life of managers and professionals. Consistent with past research, the amount of time personnel devote to meetings continues to increase although the pace appears to be slowing. Much of this time is spent in small groups who meet for **non-**decision making activities.

All of our findings reveal a gross underutilization of electronic meeting tools in organizational settings. The potential of EMS to improve meetings has been primarily demonstrated in large meetings through experimental and field studies. Our results indicate that its' **actual use** in large meetings is surprising low. .

The prediction of an increasing use of EMS by Beauclair and Straub (1990) does not appear to be occurring Our preliminary analysis suggests that EMS may need to be marketed more vigorously, and that the developers need to pay more attention to the importance of offering improvements for small group meetings and non decision making meetings in the design of their systems. Perhaps support systems for small groups, i.e. shrEdit, c-u-c-me, etc. deserve more research attention. We believe that shared word processing and spreadsheet preparation for small groups may be more useful to firms than large EMS.

When considering the findings reported in this paper it should be remembered that the data was collected Fall 1994 through Spring 1995. As a result, the findings may not be totally representative of the current use of electronic tools, given the rapid growth of the Internet and intranets.

Due to space limitations, references have been omitted, but are available from the authors upon request.