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MODERATING ONLINE CONFERENCES

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INTRODUCTION

While considerable lore has accumulated about effective leadership techniques for groups interacting electronically, until now it has not been systematically presented. This material is culled from the experiences of those who have moderated past online conferences, the knowledge common to the EIES User Consultants, and observed behavior from thousands of conferences convened on EIES in the past. While this is a system-specific guide, the general principles ought to be generalizable to other systems, with different structures for group discussion.

Robert Burns put it well:

> The best laid schemes o' mice and men
> Gang aft a-gley;
> An' lea'e us nought but grief and pain,
> For promis'd joy.

Dashed hopes can be prevented. This manual attempts to synthesize the acquired wisdom by presenting a set of guidelines for the effective facilitation of electronic groups, rather than a list of programmed specifications or conventions. Whether or not a conference is successful depends on the leader's skills, which are both intuitive and learned by experience. The leadership techniques needed to moderate an online conference are significantly different from those appropriate for face-to-face meetings. This is a compendium of lessons learned, written to help the leaders of future conferences. But since the "rules" change for each group, it is meant only as a set of guidelines.

Desirable leadership qualities include sensitivity to the needs of participants, knowledge, persistence, willingness to spend the time and effort, enthusiasm, creativity, and flexibility. Although the ideal leader doesn't exist, successful conferences have proliferated.

Many items are not covered here, such as pre-conference preparations, selection of the leader and members, invitations, finances and sponsorship, the mechanics of establishing accounts and conferences, intermediary or follow-up face-to-face meetings, and post-conference implementation. Note that this manual references features on the EIES system, which differ from those of other computer-mediated communication systems.

ELECTRONIC MEETINGS

A conference is an electronic meeting to share information or ideas, solve problems, make decisions, instruct or train, or complete a task. It may be called a workshop, seminar, panel, symposium, colloquium, convention, tutorial, etc. But regardless of the type of meeting, there are certain structural and processual issues - and pitfalls - that apply to all.

Computerized conferencing represents a new form of interactive communication for group processes. By creating a common and modifiable group memory, it permits collective intelligence. This is the only kind of communication system "that allows a group as part of its group communication process to modify, update, reorganize, and reclassify what has transpired as an integral part of its

communication process." This capability allows a group "to exhibit a collective decision capability at least as good as or better than any single members of the group" (Hiltz and Turoff, 1978:38,44).

Although conferences are usually asynchronous, with people participating at the time and pace most convenient to them, they are sometimes conducted in real time.

Conferences provide a programmed structure for group discussion. Advantages include a permanent written transcript, markers which allow automatic updating, and search, retrieval, and other organizing features.

TYPES OF CONFERENCES ON EIES

o   Private Conferences: Each EIES member may establish his or own private conference and invite others to join. Purposes include meeting spaces for those with shared interests, spaces for the discussion of a specified topic, administrative spaces for solving problems, and specialized spinoffs from other conferences. These may be either temporary ad hoc groupings or permanent meetings.

o   Group Conferences: These are meeting places for the group as a whole, and may be more formal.

o   Public Conferences: All EIES members may read or write in these spaces established for topics of general interest.

o Cocktail Parties: Permit more informal interaction and are always conducted in real time. They may be useful at the beginning of a group's work to "break the ice" and introduce people to each other, as tension-relieving devices, or for brainstorming.

o Safety-Valve Conferences: such as the Graffiti public conference or a private conference on arguing for its own sake, seldom permit serious discussion.

o Convention Conferences: consist of interactions between EIES members and those attending a formal meeting. In the most ambitious cases, reporters have summarized the face-to-face proceedings online while EIES members participate at a distance.

LEADERSHIP CHARACTERISTICS

LEADERSHIP STYLE may be self-oriented (authoritarian) or group-oriented (egalitarian), with many degrees in between. Since an authoritarian leader tends to dominate the process, this is likely to decrease participation by others. The egalitarian leader appears to be effective in this medium. He or she encourages participation from all members, moves them to consensus, and includes all those interested in the formation of policy (Kerr and Hiltz, 1982:81-82).

LEADERSHIP EFFORT includes the amount of time spent online plus the time spent offline thinking, planning, and communicating with group members. The level of effort depends on the leadership style and the situation. Some may perceive the need for considerable interaction on their part, while others may feel that their activity could

decrease participation (Kerr and Hiltz, 1982:82-83).

The moderator of an active task-oriented conference should plan to spend thirty minutes or more each day online. Effective moderators in this medium must exert strong and supportive organizing pressure. Regardless of the style adopted, they should plan to spend considerable time working in the conference to keep it lively and productive. Anyone who cannot devote regular and substantial time to moderator activities should not undertake this role. Moreover, the moderator must be someone who is very familiar with the mechanics of using EIES as a communication system. Alternatively, User Consultants are available on a consulting basis for short-term assistance to the moderator and the group.

STRONG LEADERSHIP has been shown to be required in this medium if groups are to be successful (Kerr and Hiltz, 1982:138-139; Johansen et al., 1976; Vallee et al., 1978:153-155; Edwards: 1977:6). The nature of the medium, including the different kinds of group structures that emerge and the absence of pressure to sign online and participate, create the need for strong and active leadership. The lack of adequate leadership is one of the factors sometimes responsible for conference failure; unless a moderator sets an agenda and keeps the group working toward its goal, nothing much will occur. But the presence of strong and active leadership does not guarantee the success of conferences. Leadership styles may need modification for the effective management of a group through this form of communication. Compared with traditional forms, leaders may feel more or less informed and in control of group activities. Johansen et al. (1979:84) reached this conclusion:

Computer conferencing provides potentially effective technical structures for controlling group interaction, but few of the familiar social structures. Training people to use the system will be technically easy but socially difficult. We believe it would be a mistake to rely on the technology to direct the communication process - either by imposing highly structured formats or simply using it as an open forum. Leadership is no less important in a computer conference than in face-to-face communication. Strong but subtle leadership appears most appropriate.

Hiltz's study of the use of EIES by scientific groups produced similar conclusions:

In observing the conferences from week to week, it could be seen that if a group leader went on vacation or otherwise disappeared for more than a week at a time, the conference activity tended to become disorganized and then drop off sharply. The group conferences needed a strong, active leader to keep the discussion organized and moving in a way that was satisfying to the participants. [The data] show an almost perfect rank order correlation between the leader's effort as measured by time online and our measures of the overall success of the group (Hiltz, 1981:131).

FACE-TO-FACE TRAINING GUIDE

A face-to-face group meeting prior to conferencing can be valuable if time and money permit, especially if the group has not worked together before. The meeting is designed to enhance or substitute for a preexisting communication network - that is, working relationships, such as regular face-to-face meetings, which were probably the basis for forming the electronic group.

Note however, that there is mixed evidence to date about the relationship between initial face-to-face meetings and the later success of electronic groups. Among the scientists studied by Hiltz, the two most successful and the two least successful groups

had no initial face-to-face meetings. The two groups which did meet face-to-face were moderately successful (Hiltz, 1983). Thus, although there is no necessity for a face-to-face meeting before online conferencing, it can under circumstances as yet undetermined, make a difference.

The face-to-face meeting is designed to foster group cohesiveness. It should include time for socializing so that people begin to become comfortable with one another. Because this is a unique meeting - the group will never meet again under the same circumstances - social contact should be an important part. Constructing friendships, interest groups, and alliances that humanize the system can be begun offline.

Substance includes defining and outlining the task, beginning the initial division of labor, and striving for consensus on goals, directions, procedures, methods, directions. It is best to begin this substantive discussion as part of the learning process.

The moderator should prepare a group message with initial instructions on procedures and steps to be followed. The first step might be to compose, edit, and send a message to the moderator. They are then directed to the group conference, where several comments setting out the proposed initial tasks are waiting. For example, they might be asked to enter a comment introducing themselves and outlining their background and interests as they apply to the group's task. They might also be asked to review and comment on an initial definition of the proposed scope and nature of the online task, to present an idea or suggestion, or to comment on entries by others.

The mechanics of communicating via computer should include an introduction to nature of the medium and the advantages of computerized conferencing over other forms of communication. It should be stressed that it is easy to learn and does not require prior knowledge of computers.

An ideal initial orientation and training session lasts about a day and a half and provides each participant with about five hours of online time on his or her terminal or microcomputer. One to two hour-long online sessions should be interspersed with offline discussions and socializing during meals or refreshments. A useful device for such a full-length training session is to break a large group of twenty or more participants into smaller working groups for about an hour and a half for brainstorming, with each group requested to report back to the entire group online. The moderator should also be online during these sessions, leading the group in beginning its substantive work via the new medium. Two or more assistants should circulate, offering assistance to those needing help with the mechanics of learning to use the system.

Since these resources in terms of available terminals and participant time are often not available, one can also "make do" with a shorter time frame and a less than ideal ratio of terminals to participants.

People are divided into smaller groups of three to five, each with a tutor. The minimum material covered includes signing online, sending and receiving a message and conference comment, accessing a conference and notebook, simple text editing, and getting online

help. It's helpful to have one person try a feature with the others
looking over his or her shoulder. Then the second person tries it,
with guidance from the first.

If there is time, other features can include message exchanges among
the small groups, real-time interaction, completing the Directory,
retrieving a Chimo issue, searching, printing a ?word explanation,
and demonstrating reminders and alarms.

Absentees present a problem. The moderator needs to help them catch
up and begin to actively participate. If possible, arrange for a
separate face-to-face tutorial on the mechanics of using the system,
especially if microcomputers are used. When they sign online, make
them feel welcome and give them visibility with personal messages and
conference comments. Offer them special help and attention if they
need it. Invite them to introduce themselves to the group.

STRUCTURE

STRUCTURING THE COMMUNICATIONS PROCESS

Selecting the appropriate structure among the various system options
depends upon objectives, needs, the composition of the group, and the
time and funds available.

One of the moderator's most important tasks is to clarify the group's
structure. This includes the differences between private and group
messages, conference comments, and notebook pages.

PRIVATE MESSAGES are sent to an individual or set of individuals.

GROUP MESSAGES are sent to a group to which the member belongs and should be terse. Each may be open or blind copied. There is the option of using a regular signature, a pen name, or anonymity. Messages are retained in the computer for about three months, and delivered when the recipient signs online. Confirmation of the time and date of delivery is provided for private messages and is available for group messages. Messages are meant for temporary or private items.

GROUPS are composed of those working on a common project. Group members can send a message to all other group members by addressing it to the group number rather than to separate numbers. They are automatically listed as group members in the Directory, and the group has the own Directory listing entered by the Group Coordinator. There will probably be a group conference and notebook, and possibly other conferences and notebooks in addition. Members may also participate in non-group conferences as individuals. Statistics of system usage are automatically collected and available to the Coordinator.

The Coordinator administers the group. Software aids include adding or deleting people; editing or deleting items, Keys, and Associations; and defining group commands for a customized interface. User Consultants are available to help Coordinators or individual members with questions.

CONFERENCES are common writing spaces for group deliberations and items that need to be discussed or reviewed later. Membership is controlled by the Moderator. Conferences consist of sequential text

items called Comments that are part of the permanent transcript. The computer monitors what the members have read and automatically brings them up to date by means of markers which may be reset. Like messages, comments may be signed with a signature, pen name, or anonymity. Participation is usually asynchronous but may at times be conducted in real time. People can be either full members (who can both read and write) or have read-only (observer) status. Conferences can be Public (open to all EIES members) or Private in nature. The Moderator has editorial powers to remove dated or irrelevant comments, and organize the discussion to facilitate review or searching.

NOTEBOOKS are spaces for group composition of the final product (report, document, etc.) and for storage of items such as customized programs and documents. Features include:

o Pages may be manipulated

o Coauthoring is facilitated, since each member can modify or delete items written by others. (In a conference, only the moderator and author can do this.)

o Pages can be grouped, reserving blocks of pages for specific purposes.

STRUCTURAL TASKS

o Establish an agreement or contract about expectations of signon frequency. Regular and active participation is crucial

to the group's success. Without regular usage, which may be daily or several times a week depending upon the group's needs, interpersonal communications cannot be supported and the acquisition of skills to allow the effective and efficient use of the system is impossible (Culnan and Bair, 1983:220).

o   Add people to the conference(s) and notebook(s) and be aware of the possibilities of overlapping and fluid memberships.

o   Consider establishing separate conferences for special purposes, such as a moderator conference for coordinating processes and problems, and a conference for technical help.

o   Spell out norms specific to the group, such as copying, copyright, and confidentiality agreements.

o   Clarify the hierarchy of authority and responsibility, and the roles.

o   Spell out your expectations of the task, division of labor, timetable, deadlines, etc.

o   Delete dated or irrelevant comments to reduce information overload.

o   Be aware of the branching capabilities of EIES, such as +ANSWER. Take care in using them, considering if enough people will choose the branch to make it worthwhile and whether it might instead be preferable to begin a separate conference.

o   Clarify the external constraints affecting the group, including relationships with other groups and funding sources if they exist.

o   Imposing too much structure early in the group's electronic life can be a mistake. Begin with a minimal amount of structure and allow the group product to evolve over time.   Sanctioning people for entering items in the wrong conferences or introducing topics that do not conform to the structure does not help them become comfortable communicating in this medium.

ROLES

Consideration of the multiple roles that may be involved in an online meeting should aid the moderator in assembling an appropriate package of structures, processes, and procedures.   Possible member roles include:

o   The expert who possesses unique contributory information

o   The client or policy maker for whose benefit or under whose leadership the conference is being conducted

o   The person whose approval is needed

o   The person responsible for the issue(s) under discussion

o   The advisor to some of the participants

o   The outside representative

o   The guest

o   The representative from an outside network

A number of support roles are possible, including:

o   The group coordinator who performs administrative chores such
as adding and deleting members, obtaining technical assistance
from the EIES staff, maintaining accounting records, etc.

o   The facilitator who guides the process activities and/or
helps the members learn to use the system

o   Administrative or clerical support to aid the members with
word processing, text entry, search routines, etc.

o   The editor who solicits material, synthesizes, compiles, and
prepares final copy

o   The programmer or analyst who implements EIES programming and
procedures, and develops special mechanisms as needed

o   The evaluator or researcher who analyzes the group's
contribution to its field, assesses the impact of the
communications technology on its work, and provides feedback so
that the group can assess the process

Members may be active or inactive, full members or observers, up to date or not, permanent or provisional, signed or anonymous, etc.

The key EIES support roles are:

o   User Consultant (HELP,110): If you're having a problem or complaint, or want to learn more about using EIES, send a message to 110.

o   System Monitor (EIES,100): Has the power to get, edit, and delete anything on the system on special request. For example, if you forget your access code, it can be checked for you.   If you're without a terminal and realize you've misaddressed a message, a phone call identifying yourself by name and access code can get a message deleted.

o   Accounts Monitor (102) handles all questions and problems with billings and accounts, as well as requests to add or delete members.

MICROCOMPUTERS AND SPECIAL INTERFACES

Some groups devise special interfaces for access to the system, which either limit access to full system capabilities or provide special features not generally available. A simple example of the first is +KID, defined for a young child who needed to access only one conference.   This was defined as +GC944,N;(Y);4;**,Y   This took him to the conference, printed any waiting items, and left him in his

Scratchpad so that he could respond.

A group of executives using the system to draft a document used an interface which reduced the thousands of commands available to only six:

> +SCAN gets all new conference comments and notebook pages waiting for you since you last typed +SCAN
>
> +GET Mxxxx prints a message that you have already read or written (example: +GET M12345)
>
> +CM takes you to your Scratchpad to Compose a Message. Type + as the first character on any free line to send it.
>
> +GET C114CCxx prints a conference comment in C114 that you have already read (example: +GET C114CC19).
>
> +CNC (Compose New Comment) lets you add a comment. If entered at Conference Choice, it assumes the conference that you are in; otherwise, it asks you for the conference name or number.
>
> +GET N114NPxx prints a Notebook Page in N114 (example: +GET N114NP1).

Ideally, each participant should have a print-capability microcomputer or terminal at both work and at home, as well as a portable terminal available for use when travelling.

PROCESSES AND PROCEDURES

This section refers to conference design: steps to follow, items to include, tone, pace, direction, and balance. It includes techniques for establishing and dealing with the agenda and for generating participation. Task activities, directed at the substantive issues of coordinating and motivating the completion of the group task, are distinguished from process activities, which refer to the social-emotional functions of maintaining group cohesiveness.

All procedures must be kept flexible, allowing for modifications emerging from the group or from external constraints.

Task Activities

AGENDA:

One of the first steps is to develop and obtain consensus for a clear set of objectives, issues, and timetables. Consider the agenda's refinement as a possible beginning group exercise. It's usually best to consider items simultaneously rather than sequentially, given the nature of the medium.

INDEX:

Reserve the first conference comment for a possible index, to be entered later and periodically revised as an organizational tool when the number of entries becomes voluminous. It might include the author, Keyword, and item number for each relevant comment. For some purposes, multiple indices are desirable. Index updates will also help you revise the Keywords. Indexes are not always worth the time and effort required to maintain them, depending upon the purpose of the conference. However, they can be a major tool for document-producing conferences.

KEYWORDS:

Keywords permit review of the discussion, searches for specific items, and scanning to catch up. Enlist the participation of the group to generate the list for the group "dictionary." Tell people

not be to too concerned about which Keyword to use, but rather to "make a stab at it."

You will probably find it useful later to edit the Keys, and possibly also the Associations, to organize the output. Since comments are added sequentially and users determine their own participation rates, it is likely that several topics will be discussed at the same time. Keys and Associations allow specific topics to be labelled and tracked. The +DKEYS command is used to search the Keywords and display an alphabetical listing to supplement or approximate an index.

Possible non-substantive Keywords include: Agenda, Procedures, Issues, Helpful Hints, Meta-Issues, Readings, Assignments, and Coffee Break.

DECISION-SUPPORT TOOLS

A task-oriented group producing a document or set of recommendations needs a set of mechanisms to elicit feedback from its members, especially when consensus is needed. This can often be done informally by normal conference comments, in which items are suggested and a group discussion follows.

More formal and structured methods include voting and rank ordering. Voting provides anonymous feedback. Both built-in and user-defined scales are available, and Delphi voting is supported. Feedback can be restricted until there are a specified number of votes, and vote changes are allowed. Since voting is done one item at a time, it is

cumbersome to work with more than two or three items.

For rank ordering, a comment summarizing each item can be entered, requesting nominations or votes to be sent as private messages. Automated procedures and statistical support will later be added.

Surveys allow the online composition and administration of questionnaires. The data are automatically collected and online statistical analyses may be performed. They can be used for evaluations, information gathering, and as part of office automation packages. The survey package, however, is currently quite complex. Rather than spending the considerable time needed to learn it, the moderator may wish to retain short-term online consulting for this purpose.

STRONG LEADERSHIP

Sharpen, modify, refine, merge. Locate common threads and weave the discussion.

Frequently summarize the group's status in terms of progress toward deadlines and tasks not yet completed.

Periodically ask individuals for a summary of their status, and feed this back to the group.

Stimulate and balance the discussion, and keep it on track.

Give explicit feedback to both individuals and ideas, with questions,

suggestions, directions, references, implications.

Cross-fertilize the ideas emerging from the group, interweaving the content threads and acting as both an internal and external link for the group.

Point out areas of agreement and disagreement to strive toward consensus.

Refrain from posing as the final authority and try to have the group make the decision. Even when you know the correct solution or action, try to let the group find it first.

Develop a format for the report and begin to draft it in the Notebook.

Process Activities

WELCOME: Send a friendly and informal first message, welcoming people to the conference, reminding them how they can get help with the mechanics of using the system and any special equipment, and pointing them to the appropriate conference spaces. Reinforce this welcome in an early conference comment. Welcome and introduce members as they join. Explain delayed appearances and temporary absences.

INITIAL ITEMS: Offer opportunities for practice to let people become comfortable with the medium. If the group members have not previously worked together, ask them to enter informal and short

introductions, describing their interests and hopes for the conference. This helps "break the ice" and provides practice entering comments.

DIRECTORY: Ask them to complete their Directory entries. This lets them change their access codes to protect the privacy of their accounts, establish a Nickname for ease of messaging, correct the name of their account if necessary, enter their their address and phone number, etc. The Directory serves as one of the major means of connecting with others online.

PARTY: Consider hosting an electronic cocktail party sometime during the first few weeks as a device for "breaking the ice." These are informal "BYOB" affairs, which can be used either as social occasions or as real-time synchronous work sessions. The optimum size of such parties is 10-15 people, since a larger number will have difficulty catching up and little if any opportunity to contribute. The host need only set the date, enter an opening comment, and later erase the transcript. A time frame should be suggested in the invitational message, but the party will end itself.

MAIL AND PHONE: Although the bulk of the group's work will take place online, there are occasions when the mails and even the telephone are appropriate. Mail copies of the transcript to late arrivals, those who are behind in their readings, and possibly to all members, to save connect time. Doing this at least once gets everyone to a common point in the transcript. It encourages people to review the discussion, identify areas needing more attention, and see their own roles within the larger framework.

You may need to phone those who are behind or those with special problems. But as a rule try to rely on online communications, since you'll have the advantages of a written transcript and self-paced communication.

DELEGATION: Assign and recruit volunteers for specific roles and tasks, working toward an explicit division of labor. Elicit agreement from individuals to contribute defined tasks. You might title people Issue Managers, for example, who are responsible for working on certain issues.

STROKING: Provide positive feedback and reinforcement in both messages to individuals and conference comments to the group, especially for their early efforts and periodically after that. Be sensitive to the needs of participants. Create a context conducive to thought, creativity, and self-esteem. Demonstrate that their contributions are valued. Reward positive contributions.

TIMING: Make sure that new items are waiting each time people sign online, since activity reinforces itself. Perhaps download previously prepared material from a private notebook, as well as adding other new items and responding to those written by others each day. Allow about two weeks when giving "assignments," since less time may conflict with the asynchronous nature of the medium.

META-COMMUNICATION: Encourage the discussion of meta issues about the communication process itself. This is particularly important because it is a new communications medium for most participants. Encourage

people to enter occasional chatty comments, analagous to what they might say during a coffee break at a face-to-face meeting, or comments related to their overriding concerns. Small task-oriented groups need to occasionally pause to talk about the process itself: participation rates, the tone of the conversation, conflicts, feelings about the process, impacts, observations and problems of using the system, equipment, pointers to readings, etc. This is a space for relating things that were read, seen, or heard that are possibly relevant to the discussion. Providing room for such chatting helps people get better acquainted and thereby strengthens the informal group processes. It can help build group cohesion and morale. By keying such items "Coffee Break," or "Meta," those not feeling chatty at the moment can skip over them to concentrate on the business at hand. It may also be an appropriate way to discuss emerging group norms.

CONTROL: Although complete control over the processes is possible, it is seldom desirable. While the general rule is to retain control over the meeting, in some conferences the leader is properly only a coordinator.

Don't let the group lose sight of its objectives. Don't allow the more verbal members to dominate the group. Maintain group morale. Encourage the members to talk to each other rather than just to you as the leader, and not to lecture to a vague audience. React to the comments of others and encourage them to do the same. There is a need for explicit agreement and disagreement in this medium, since non-verbal cues (such as smiles and frowns) are absent.

Control is linked to managing participation. It involves creating and maintaining a positive climate, awareness of the current direction of the conference, intervening when people get off track, constant awareness of the objectives, and maintaining goals, priorities, and time frames.

NORMS: Monitor the emergence of group norms, particularly those concerning the privacy and confidentiality of the material, copying and quotation restrictions, and copyright issues.

Brevity may eventually become a group norm, since a series of short items are usually more effective than a single longer one. Dividing a longer item into several shorter ones allows others to reference a specific idea without forcing them to read a long item to locate the one nugget of interest. Short items help prevent information overload, whereas long ones tend to lose the reader. Yet an insistence on brevity at the expense of substance or process can seriously harm group morale.

GENERATING PARTICIPATION

Motivating members to regularly and actively participate can be a problem. This is accentuated by the asynchronous nature of the medium, since people sign online at their convenience and participate at their own pace. Those whose work style is "interrupt-driven" do not participate much in the absence of scheduled time periods. Active participants will become frustrated as others fall behind.

Although protocols, norms, and sanctions are likely to evolve over

time, the moderator needs to provide incentives for participation. Mechanisms include:

o   Extract an agreement about the expected frequency of signing online. You might suggest they plan on at least three or four sessions a week to stay current.

o   Allow time at the beginning for people to become comfortable communicating and working together as an online group.

o   A brain-storming session near the beginning of the group's work can be used to generate activity and quickly record a variety of ideas about which judgment can later be applied.

o   Spell out and frequently repeat that active participation is crucial.

o   Develop the habit of regularly monitoring the membership status of your group, reminding those who are lagging behind to catch up.

o   Use private messages as reminders, perhaps pointing to specific items about which you would like feedback, and for positive reinforcement, especially of early entries. Messages should be a regular supplement to the more public comments.

o   Reinforce participation by thank you notes, to both individuals and the group. Compliment and praise.

o   Establish explicit expectations and deadlines.

o   Explicit responses are crucial, since non-verbal cues such as smiles, nods, and frowns are absent in computerized conferences. It is very important to let others know whether you understand, agree or disagree with their comments and to spell out your intentions and expectations. People cannot hear your tone of voice, may not recognize subtlety or humor, and may misinterpret an innocent remark. Be wary of humor and sarcasm which are easily misunderstood.

o   Stress the informality of this communications medium. Let people know that perfect grammar and typing are much less important than making their meaning clear. It's simple to edit items that will become part of the group's report later.

o   Select and mix techniques to keep people interested, motivated, and stimulated, such as discussion, question and answer, quizzes, games, role case studies, brainstorming, and simulation exercises.

o   Questions and answers can be used to keep the discussion moving, to emphasize important points, and to maintain control of the meeting. Rather than "planting questions" among the audience as might be done with a face-to-face group, you might use anonymity or a pen name to ask questions of yourself.

o   Consider using anonymity or a pen name to make an "off the wall" remark to stimulate discussion. Tell the others how to

use these features, which can be used to share proprietary information or simply express a point without attaching one's name to it.

o   Games can produce competitive involvement. Simulation and modelling techniques can be automated.

o   Depending on the nature of the group and your style, sometimes fade into the background and let the group take over, but don't lose control of the meeting.

o   Remind the group that items entered earlier are still "fair game" for discussion and consideration.

o   Consider breaking the group out into subgroups, perhaps forming a new conference or using private message exchanges.

PROBLEM PEOPLE

Some problem types present in face-to-face meetings are absent in this medium. The "Side Talker" for example, can operate through private messages as the equivalent of whispers without disturbing the group.

Move the "Heckler," "Complainer," and "Argumentative Pair" into private messages where you deal with them. Alternatively, enlist the support of the group and its emerging norms to solve the problem. Or address specific questions and tasks to them.

Point the "Rambler" back to the topic at hand, possibly pointing out that the group's time is limited and valuable.

Request that the "Obstinate Person" accept the group's consensus and deal with him or her further in private messages if necessary.

Explain to the group what the "Incoherent" person has tried to say.

Gently correct the "Misinformed."

Thank the "Eager Beaver" for his or her enthusiasm, but suggest that others need to catch up and participate. Consider coopting this person by assigning a task, such as summarizing each phase of the discussion.

The "Nonparticipant" is the most serious problem. Determine the reason or reasons for lack of participation. Are they reluctant to express themselves, and if so, why? Is it discomfort with the medium, insecurity expressing their thoughts, or possibly that they actually have nothing to say? Are the problems of a technical nature, such as hardware problems or not understanding the mechanics of using the system? If they're online and reading but not commenting, check if their marker is accurate. It may be necessary to telephone for a full diagnosis. Encourage members to make some comment, even if it's procedural rather than substantive.

"Laggards," who are falling behind, need to be helped, by message and possibly also by phone, before catching up becomes a major problem.

"Dropouts" need to be identified and minimized. Since they are by definition not signing online, discuss the problem by phone, perhaps having a technical consultant make the first call.

The victim of "Information Overload" needs help. Information overload is a cognitive cost of the medium. The volume and pace of information can become overwhelming, since items are not necessarily sequential and multiple topic threads are common, and especially if people get behind in their participation. Intensive interaction with a potentially large number of communication partners can result in the mushrooming of the absolute amount of information and the number of simultaneous discussions, conferences, and other activities beyond normal coping abilities. System features to enable users to effectively deal with this include filters, associations, keys, alarms, reminder files, user-defined functions, search and retrieval capabilities, the conference index, and mailed transcripts. These are supplemented by the learned habits and skills of users, who must periodically reassess goals and priorities, such as selectivity, organization, filtering, and time management (Kerr and Hiltz: 1982, 97-98).

IN CONCLUSION

If this manual emphasizes the potential problems of computer conferences, it is unintentional. Focusing on the strengths of the medium without assessing the practical problems of actually using it would be a mistake. Like other communications media, computer-mediated communications systems cannot be evaluated without examining the ways in which it is used. This manual is the result of observations of the use of EIES by a multitude of groups with very different kinds of purposes during its nine years of operation. It is hoped that future users will learn from past experiences, so that they may develop their own approaches to effective communications using this new technology.

REFERENCES

Culnan, M.J., and Bair, J.H. (1983). "Human Communication Needs and Organizational Productivity: The Potential Impact of Office Automation," Journal of the American Society for Information Science, 34, 3, May, 215-221.

Edwards, G.C. (1977). An Analysis of Usage and Related Perceptions of NLS - A Computer-based Text Processing and Communications System. Bell Canada H.Q. Business Development, Montreal.

Hiltz, S.R. (1981). The Impact of a Computerized Conferencing System on Scientific Research Communities. Final Report to the National Science Foundation. Res. Rep. No. 15. Computerized Conferencing and Communications Center, Newark, N.J.

Hiltz, S.R. (1983). Online Communities. Ablex, Norwood, N.J.

Hiltz, S.R., and Turoff, M. (1978). The Network Nation - Human Communication Via Computer. Addison-Wesley, Reading, Mass.

Hiltz, S.R., Johnson, K., and Agle, G. (1978). Replicating Bales Problem-Solving Experiments on a Computerized Conference: A Pilot Study. Res. Rep. No. 8. Computerized Conferencing and Communications Center, Newark, N.J.

Johansen, R., Vallee, J., and Palmer, M. (1976). "Computer Conferencing: Measurable Effects on Working Patterns." Presented at the National Telecommunications Conference, IEEE, Dallas, Tx.

Johansen, R., Vallee, J., and Spangler, K. (1979). Electronic Meetings: Technical Alternatives and Social Choices. Addison-Wesley, Reading, Mass.

Kerr, E.B., and Hiltz, S.R. (1982). Computer-Mediated Communication Systems: Status and Evaluation. Academic Press, N.Y.

Vallee, J., Johansen, R., Lipinski, H., Spangler, K., and Wilson, T. (1978). Group Communication through Computers. Vol. 4, Rep. R-40. Institute for the Future, Menlo Park, Ca.