Participant Interaction Messaging

- improving the conference process

The Problem

Despite the sophistication of conference organization, there is an increasing sense of malaise. Even in well-organized events, something seems to be missing. There are a variety of symptoms of dissatisfaction, including:

- participants preferring coffee table exchanges to formal sessions;
- participants simply bored with preplanned sessions and finding excuses to leave the conference site (for business engagements or tourism);
- participants intimidated by the proficiency of those who frequently participate in such events;
- small group sessions failing to bring together the people who could fruitfully interact;
- participants frustrated in their efforts to present ideas to others, possibly because of constraints on discussion time;
- participants irritated by the formality or informality of the conference process (e.g. style of chairperson, protocol arrangements, etc);
- experienced participants "holding back" from active involvement in discussion sessions in order to give inexperienced newcomers an opportunity;
- speakers frustrated in their inability to continue a dialogue with participants after their presentation (and possibly on other topics);
- participant irritation at use of discussion time by some to publicize their interests and views in order to make useful contacts;
- participants and speakers unable to correct misunderstandings which appear to have arisen from their interventions;
- pre-planned topics preventing discussion of spontaneously emergent topics or those of interest to a participant minority;
- participants with several interests unable to communicate ideas to sessions organized in parallel with the one corresponding to their major interest or obligation;
- ideas distorted by poor simultaneous interpretation;
- participants having difficulty in determining the people with whom discussions would be most fruitful.
TABLE 1 : A Simple Procedure For Participant Messaging

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<tbody>
<tr>
<td>1.</td>
<td>Provide participants with a stock of half-sheets of paper on which to formulate comments, reactions to speakers, questions, etc. in a maximum of 50 words (say). Instructions may be pre-printed on the sheets or on a separate instruction sheet.</td>
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<td>2.</td>
<td>Arrange for the message sheets to be collected, whether via collection boxes and/or by attendants during sessions, or even from the conference hotel.</td>
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<td>3.</td>
<td>Type a series of such comments into a word-processor file, numbering the messages, and appending the participant name (if not anonymous). Inappropriate messages could be screened out.</td>
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<td>4.</td>
<td>When sufficient messages have been accumulated to fill a one (or two) side sheet (possibly formatted in 2 columns in a smaller type), edit and spell-check the file. Then print a master copy. This may bear an appropriate letterhead and document number. Topic headings may be added by editors to each message, if not supplied by the participant.</td>
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<td>5.</td>
<td>Make sufficient photocopies for participants.</td>
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<td>6.</td>
<td>Distribute copies to participants (and speakers) either between sessions (possibly for a token charge) or, preferably also during sessions.</td>
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<td>7.</td>
<td>Repeat steps 1 to 6 as necessary throughout the conference process. It may be used as a common messaging link between plenary and workshop sessions.</td>
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<td>8.</td>
<td>Participants and speakers are now in a position to interact in an additional mode. Whether in spoken or written mode, participants can pick up on the numbered written comments when and if appropriate. Panellists can choose to respond in writing to some points, or initiate their own comments.</td>
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</table>

The Challenge:

One paradox of "well-planned, state-of-the-art conferencing" is that features of the current design inhibit the emergence of the collective insight. And yet insight capture and cross-fertilization of ideas are principal objectives of the event.

A second consideration is to maximize the use of the intellectual resources assembled, namely the many conference participants who will only get a limited opportunity to speak. Within the usual conference framework, at any one time most participants are obliged to adopt a passive mode. This fails to exploit the ability of intelligent people to listen and be productive at the same time. The experience can be very frustrating for the more creative participants who cannot be offered much opportunity to contribute or respond to speakers.

Another dilemma of pre-planning is the undeniable acceptance of the programme and organisation as established months beforehand. This turns unwary participants into actors in a play whose script and direction are governed by the creativity of the past. There is a need for complementary activities to recover the ability to take unplanned initiative in the present.

It is clear that much of the interest of a conference lies in the unforeseen communication between those present. This cannot be planned and is in many ways independent of the conference programme. But whilst serendipitous interaction cannot be designed, there are ways of stimulating and facilitating it.
TABLE 2: Resource Use With Increasing Sophistication Of Participant Messaging

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* Local Area Network of computer terminals which enables direct writer input

DESCRIPTION OF VARIANTS

A = basic typewritten Bulletin posted on message board, no copies, messages of no standard specification transcribed in order of receipt with minimal editing and formatting

B = typewritten Bulletin as above, multiple copies from stencils

C = typewritten Bulletin as above, multiple copies by photocopier

D = untyped single or multiple copy Bulletin compiled from handwritten messages

E = single or multiple copy Bulletin, typed from message forms, giving more consistency of message length, keywording etc.

F = "message board", unstructured or minimal structure

G = "message board/wall newspaper", standard format messages, categorised

H = E (Bulletin) + G (message board)

I = word-processed newsheet, spell-checked, some formatting, font use etc.

J = I (as above) + customised (WP or Dbase) software, multiple copies newsheet/various formats

K = as above + local area network (multiple terminals) for input and production, internal electronic mail

L = as above + distant e-mail in and out

M = as above + internal & external messaging

N/O = any of the above variants + 1 or 2 extra languages
A Solution: Overview of Participant Messaging

Many conferences make available a "message board" for the exchange of messages between participants. This is seldom a high priority concern of the organizers and in its usual form it has little impact on the above problems. But with relatively little funds or personnel, participant interaction messaging can acquire a whole new dimension.

There are many variants and elaborations of participant interaction messaging which are explained in sections of this manual. You can make participant messaging as simple or complicated as serves your needs. Special software has even been developed to facilitate some of the steps. But the basic process is so simple that "optional extras" would only be a distraction at this stage. The simplest procedure is outlined in Table 1.

The resource requirements for this process are very modest. It is a creative secretarial job with as much editing effort as you might judge appropriate. Ingenuity can be used to maximize turnaround and to deliver documents back into the hands of participants before a theme has gone cold. It can be readily set up and adapted at short notice in response to changing circumstances.

Variants of this process have been used at a number of international conferences since 1980 -- most recently during the Earth Summit Global Forum in Rio (see "Case Studies")

How To Go Further

The remaining tables in this Introduction this are to help you decide at what level to do participant messaging, depending on your wants and resources. They follow through a series of decision procedures.

Table 2 shows the resources which can be employed to do participant messaging at varying degrees of sophistication. Any of the fifteen variants can add significant new opportunities for participant interaction.

There is a choice of three environments in which to place participant messaging: "document", "wall" and "computer". These environments offer different opportunities for visual and manual presentation of the messages through their use of different media of communication; they can be blended and combined to complement each other.

The document environment is central. It supports production of "hard-copy" Bulletins using various combinations of personnel resources and equipment which you may have at your disposal. The reason why the production of a multiple copy Bulletin is given the highest priority is that it opens up the most new options for interaction and offers a number of other benefits.

The vast majority of conference-goers relate most readily to the printed word. People feel comfortable with hardcopy which they can study and mark up at leisure. The collection of messages can be mulled over by participants if a speaker fails to hold their attention. There is a lot of "dead time" during a conference which can usefully be addressed by encouraging participants to formulate messages in response to speakers or other messages. Screening for "irrelevance" can be less stringent than during a verbal intervention, thus increasing satisfaction of contributors and broadening the involvement to those who would hesitate to speak out in sessions — it provides a "safety valve".

The wall display and computer networks can be completely distinct from the document stream or adjuncts to it. Here they are treated here as secondary (although you may prefer to have one or the other as you first priority). These environments are entered by routes which diverge from the main decision-processing path which produces multiple copy Bulletins.
Table 2 is a "Table of Contents" for this Manual. It lists the sections of the manual which would be appropriate to each of these environments: "wall space", printed material or "document" and "computer networks". The document environment has been divided into two parts: "low tech" and "high tech" - "low tech" meaning using essentially manual equipment (typewriters and stencil machines for example) compared with "high tech" computer hardware and software. Each module is more or less self-contained and contains cross references to other modules to which is closely related.
## TABLE 2: Modules Appropriate to Different Forms of Participant Messaging

<table>
<thead>
<tr>
<th></th>
<th>Module</th>
<th>Wall Space</th>
<th>Lowtech document</th>
<th>Hightech document</th>
<th>Computer networks</th>
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**INFRASTRUCTURE AND EQUIPMENT**

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**PERSONNEL AND FUNCTIONS**

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Distribution is a critical aspect of the interaction cycle. Without a special strategy to ensure the Bulletin is read by participants, it can be perceived as just another item in the masses of paper at a conference.

An appreciation of the interactive nature of the participant messaging system should be given and reinforced very early in the proceedings. Once the immediate and dynamic role of the interactive Bulletin is grasped, people will more readily seek it out and develop a habit of reading and messaging. Investment of effort to ensure this is well made at an early stage.

The Bulletin can be distributed to participants in any of the usual ways: in pigeonholes (if available), to participant seats in meeting rooms (at coffee break), from one or more designated locations (document desk, message box locations, etc.), hand-outs by ushers at meeting room doors, etc.

Pick-up

The distribution system needs to be visibly prominent and distinctive. The Bulletin can be made available at numerous critical points, on "racks" outside session rooms, in hallways, at registration desks, at press offices, in coffee areas, and accessible to outsiders (observers, government delegates, etc)?

It is a good strategy to have the Bulletin conspicuously located with the message collection boxes and a stock of blank forms (see "Message Collection": Doc / C3).

Hand-out

There is a major advantage in handing out the Bulletin. This reinforces its interactive role in the conference. Many participants will simply not read printed material unless it has a personal association.

Participant Mail Boxes

It is an easy matter to make sure that everyone receives a copy of the Bulletin when the conference participants have their own mail boxes; but if this is the sole method of distribution, it is important that the participant messaging system is endorsed publicly and frequently by the organisers, and that the collection system is also apparent.
Computer entry of messages opens up a broad potential for extending the product beyond an interactive Bulletin. If keywords, author name, country, cross-references, and various other details have been entered together with the messages into a database, it is then possible to selectively reorganise the material and distribute or sell it as hardcopy or disc file. Here are some possible alternative formats and classifications:

Message Sequences:

- latest as they appear
- complete package (including appended cross-references)
- selected by topic or topic cluster (deforestation, etc)
- selected by working group
- selected by language
- selected by type (proposition, procedural, etc)

Message Sequence Indexes:

- by topic
- by working group
- by author
- by type

Citation Analysis:

- topics linked by what messages citing both
- working groups linked by what messages citing both
- authors linked by what messages citing both

Other Combinations

Some of the hardcopy output could be pre-planned. But there would be great advantage in leaving unimagined possibilities to the curiosity of participants and to the ingenuity of the support staff.
A streamlined system of message collection is useful, even essential, to reduce the time-lag between message formulation on paper and its processing.

The process must be constantly referred to by chairpersons - "Many people who want to speak might consider formulating their point in writing - others outside this session will also then be exposed to it. Please hand your messages in to....".

The message collection procedure may also be used for personal messages (not to appear in the Bulletin or be displayed). The editorial "message processing office" could then make appropriate arrangements for these to be delivered or picked-up. Such messages should not require typing (but a translation service could be offered, if required). If costs are a consideration, see "Sale" : Doc / C3).

Hand-in

Messages can simply be handed in at a well-known place, such as the administrative desk, communication office, conference chair, etc. Such message collection points must be identified and visible. An advantage of this method is that the collection point(s) can be staffed. Some pre-processing tasks, like numbering and the checking of length and legibility, may be done at this stage (see "Pre-Processing" : Doc E / 10).

Helpers

Helpers could collect messages during sessions (as with money collection in churches!). In this way, there is continual reminder and encouragement for participants to submit their thoughts and feelings to paper. Collection staff also add a personal face to the Bulletin. A useful combination is to collect messages and distribute fresh message forms in session.

Message boxes

Messages can be posted by participants into "message collection boxes" located at any or all of the following:

- the conference reception/registration area
- the main conference room (outside)
- the conference room (inside)
- the communication centre
- the hotel reception area
- next to the message board.

Message boxes can easily be constructed on the spot from cardboard cartons used to transport documents. Cartons for photocopy paper are ideal, particularly if they have removable tops into which a slit can be cut. Otherwise the top can be tied shut with string or ribbon. It is an advantage to cover the boxes with a distinctive coloured paper, and to mark on them something like "Participant Interaction Box" or, if there is one, the name of the Bulletin.
Placing a stack of blank message forms, cards or half-sheets of paper by the box, also encourages participants to use them.

One or more conference staff members must be given responsibility to empty the boxes periodically (once or twice a day, or more frequently).

The problem of people tampering with message boxes is an unlikely one. Removal of messages from boxes is only likely to occur in special situations. Boxes can be locked or taped in a "tamper-proof" way.

It is very helpful to the success of the message box strategy if on several occasions, at the beginning of the conference, the chairperson can strongly recommend its use to participants. Similarly, when good ideas are voiced in informal discussion (at coffee break), organizing committee members present can suggest "Why not put it in the box?" as a way of ensuring a wider exposure.

Computer-aided

In a computer-networked environment, messages can be sent from computer terminals in both nearby and/or distant locations (using electronic mail, even from the other side of the world; see "Computer" : Doc /19). These can be printed out and processed in the same way as handwritten messages (also displayed on the message board). They can also be downloaded directly into the computer file being compiled for the Bulletin.

There is an obvious advantage in being able to ensure a smooth collection interface between handwritten messages and downloaded messages. For a local area network (LAN) at this level of sophistication, the use of a database file to handle messages would be worth considering (see "Database Software" : Doc / 18). On the other hand, the messages on a wide-area electronic system will clearly be held in a database format. The issue then becomes how to blend the two, especially in situations where the wide-area system may crash and the local system needs to fall back on standalones with disks or a LAN using some local database package (see "Networks" : Doc /119).
There are advantages in selling the Bulletin, more than just cost recovery if this is an issue. A financial transaction, however small, takes the acquisition of a Bulletin away from that of the usual array of conference handouts. Two immediate benefits are that it is more likely to be read and that resources are not wasted (see "Resource Use and Waste: Doc / 16").

Sale can be time-consuming or awkward, however. Some consumer opinion should be sought on approximate price. Another price consideration is a convenient unit of currency, for example the smallest note. Tokens or stamps could be sold in advance. This would enable the production size of each issue to be most finely regulated.

See "Case Study 8" on the Global Forum.
In-Session Messaging

Some conferences may be well-suited to periodic collection of messages and distribution of Bulletins during each 1-3 hour meeting session, such as plenary sessions where resolutions are being passed. Whereas in conventional practice only one participant at a time can speak to a session, however many are listening (or not), here there is the possibility of many participants contributing written messages simultaneously to the session discussion, even those with obligations in parallel sessions.

These contributions can be quickly scanned by participants in Bulletin form, may be cited and linked by speakers (particularly with regard to exact wording), may reduce the time pressure in discussion periods, and provide an immediately available written record of issues raised. Investigation of this possibility is very worthwhile because of the way it can considerably increase the session's productivity. Allocating the necessary typing, reproduction and collection/distribution support could even prove to be a better investment, in some instances, than simultaneous interpretation (specially if translations were made). Naturally, use of in-session messaging would depend on suitable facilities and personnel support, eg. whether the chair arrangement impedes movement of ushers.

A variant on the previous option is to restrict distribution of the in-session Bulletin to those on the podium (e.g. panel members) who are thus able to select and group the points raised prior to a verbal response (although some written message responses would also be possible if the Bulletin issues were to be available to all participants on leaving the conference room or later). This is an extension of a practice already adopted, when written questions are filtered by the session secretary and then distributed to panellists.

It is also possible to use the Bulletin for specially requested feedback. One particular question (or more) may be considered as worthy of special written feedback; it may also need to be voted on participants (use of stamps avoids identity problems). In this way a variety of perspectives on the issue may be quickly obtained through an issue of the Bulletin. When the range of questions is greater, an issue of the Bulletin may contain (or consist of) a questionnaire/vote form to be returned as with normal messages (like a "reader service reply card" found in some magazines where numbers can be ringed according to reader interest). With each question given a reference number, this option blurs into that of a questionnaire. Such a set of key questions may in fact be a useful way of launching the process (see "Pump Priming" : Doc / E3).
Da Zi Bao
Participant Messaging for the Earth Summit/92 Global Forum

Title/Topic:

Message: (Not more than fifty words. Please PRINT or write clearly)

First Name: Last Name:

Contact "address" in Rio:

Organization:

Country: Date: Time:

The level of inter-sectoral debate is raised when you respond proactively to others. This message is a response to Da Zi Bao Message #:

(name of person/group)

This message is:

☐ Reflections/insight  ☐ Information
☐ A question  ☐ Feedback on process  ☐ Show and tell
☐ A comment  ☐ Humour  ☐ Books, articles
☐ A complaint  ☐ Emotions/feelings  ☐ Resources
☐ A recommendation  ☐ Networking  ☐ Happenings
☐ An issue for discussion  ☐ Announcements
☐ Proposed group discussion  ☐ Want to meet

Why Send Messages?
The use of Da Zi Bao at the IFC Inter-Sectoral Dialogue Meeting is intended to aid cross-fertilization of ideas from the different sectors. It also provides a written record which allows you to comment on other contributions and on non-agenda items. Messages will be numbered, typed into a database, and printed when there are sufficient for a bulletin. We anticipate producing several bulletins each day.

Everybody wants to contribute at this event. The Da Zi Bao bulletin is one way for you to share your insights and proposals. When many people want to speak, it may be easier for you to write down your message for the Da Zi Bao bulletin.

This meeting forms part of a continuing series of conferences which Da Zi Bao serves. The outcome and benefits of participant messaging depend on your contributions. We hope that the Da Zi Bao networking process will make the meeting more dynamically useful for you, and help reach higher orders of dialogue by focusing the energy of the conference process.

How To Use This Form
BEFORE 25 May, send messages for the first issue of Da Zi Bao to:

telefax +32 2 646 0525

<Da Zi Bao>, c/- VIA, rue Washington 40, 1050 Brussels, Belgium

AT RIO:

* give message forms to the Da Zi Bao attendants or
* place them in the Da Zi Bao boxes outside the meeting room.

About Da Zi Bao

Da Zi Bao -- a Chinese phrase meaning "wall newspapers" -- is an evolving and experimental project which is designed to assist the UNCED gathering to be as effective as possible. Da Zi Bao represents a breakthrough in interactive conference processes, as well as being a new form of interactive free press.

Participant messaging was first used in the UNCED process at Roots of the Future International NGO Conference held in Paris in December 1991; since then at:

' The Second Global Structures Convocation (Washington, DC, February 7-8, 1992)
' Global Heart Planning Session (Tucson, Arizona, February 17-20, 1992)

Da Zi Bao incorporates a sophisticated integration of a relational database with advanced word processing/desktop publishing features. It will be the principal means of communication among the 10-15,000 participants in more than 300 conferences of the '92 Global Forum.
Specially printed message forms or cards highlight the messaging facility and encourage use. They can also be used to regulate use (see "Identity" : Doc / E2).

Some guideline should be given on message length - long messages exceeding 4 sentences reduce the readability of the Bulletin); or there could be a policy accepting only single sentence messages. Conventions such as this can also be managed by design of special message forms (below), or text reduction during the editing phase of the Bulletin (Docs / E10 & E11).

Message forms can also be used to guide the user and complement verbal instructions. A sample message form is shown on the following page. This example shows that most necessary instructions to the user can be encoded, in a self-explanatory fashion, on the form itself.

For international conferences, instructions and messaging forms need to be rendered into all official conference languages (see "Multiple Languages and Translation" : Doc / E5).

The design of message forms should take account of any additional information the Bulletin editors would find useful to receive (in addition to the message itself). By providing a prompt field or box for such information, the frequency with which it is supplied by the user is greatly increased.

Some points to consider are:

- **Author**: Those feeding in messages should be encouraged, or at least free, to indicate their name. Alternatives include: "anon", pseudonym, a working group name (where the conference has such groups, whether formal or informal), name with a pigeonhole, (or hotel room) number, or address to which replies and requested information can be sent.

- **Message cross-referencing**: Part of the problem in a large conference is to counter fragmentation and build coherence: to do this it is necessary to get some sense of context and to follow the evolution of positions. Therefore it is helpful for messages to cite preceding messages (at least by number) (see also "Pre-Processing" : Doc E10).

In a computer-aided environment, cross-referencing of messages could be handled as a relational database in which cited messages gradually accumulate references to those citing them (see "Data Processing Software" : Doc 18). Old messages may thus have added information if they are subsequently selected and printed out for some special purpose ("Database Products : Doc C2).

**Opposite** is an example of a message form produced as part of the computer-supported Da Zi Bao process. Message forms can very simple also.
Visibility

It is a general fact that organizers have had little or no interest in promoting contact between participants outside the framework of the planned programme, receptions and tours. The low status of any "message board" is an example of this. The sterility of the conventional "suggestion box" is another.

A special effort is therefore required to distinguish the messaging process from such "low status, insignificant" initiatives (see "Organiser Involvement" : Doc / S2; "Evaluation and Performance Indicators" : Doc / S3). Some participants will immediately recognize the opportunity it offers. Others will respond to encouragement from the chairperson in a formal announcement. Others will wait to see the extent to which their colleagues make use of it.

Some participants, often the more eminent, consider it beneath their dignity to be seen to be examining scraps of paper on a message board. Some will not even be seen to examine typed Bulletins on a wall display. Hence the value of personal copies in some way related to the formal conference documentation. The presence of amusing comments may ensure that the Bulletin are read during boring moments in plenary sessions - but they may also reinforce the disdain with which such "unsanctioned" perceptions are viewed by "serious" participants. Participants may recognize that they can use "doodling-time" moments fruitfully in order to formulate additional comments of their own.

Involvement

Working against use of unexpected and involving initiatives like participant messaging is a tremendous problem of passivity which traditional procedures have instilled into participants and which has been reinforced by the conventional attitude of organizers. Many participants expect to experience a conference like a set of television programmes amongst which they can choose by "changing channel". They are quite content that organizers should provide few occasions for unplanned interchanges and are thus unsure how to behave when such occasions occur. It is not clear what proportion of participants perceive themselves as contributors to the exercise, as opposed to consumers of what is offered. Unfortunately there are many conferences where such unquestioning acceptance is a guarantee of the unproductivity of the event. The condition is often appreciated by organizers who count the obedience with which participants follow the programme as an indication of the success of the event. Participant initiatives are perceived as threatening.

1 It would be interesting to explore the possibility that conventional speaker-oriented conferences, dominated by masculine influences, require and engender a feminine passivity on the part of the audience. In this sense, participant interaction messaging may be seen as a feminine (networking) communication process to counterbalance the masculine (hierarchically structured) use of microphone/amplifier systems. It could also be argued that the latter provides a channel for collective conscious expression whereas the former may provide a channel for a less visible, and more sensitive, form of awareness.
Inform participants of the availability of the messaging facility. This should be done by verbal announcement.

It should be absolutely clear that the messaging system is an integral part of the conference and fully endorsed by the organisers. Reinforce the point by referring to blank file cards, half-sheets of coloured paper, or pre-printed message forms (see "Message Forms": Doc / D1) which are in the participants’s folder and/or laying conspicuously on tables. If participants are supplied with notepads as part of their folder, they could be encouraged to use them for messages.

Invite participants to use the messaging facility. A verbal announcement should preferably be reinforced by a single sheet explanation in each participant’s folder or in the printed programme (examples are given on the following pages).

Unless there are reasons to the contrary, it should be plain that participants are encouraged to contribute messages to indicate any of the following:

- additional issues they would like to discuss
- comments on points made by speakers in plenary (or elsewhere)
- questions, possibly addressed to specific speakers, factions or coalitions
- remarks on statements in the conference documentation, or on the programme as a whole
- initiatives on which they are seeking support from other participants
- invitations to attend spontaneously organized meetings (whether in a conference room, or at some location such as a coffee room)
- organizational or other queries and complaints
- humorous observations, wisdom, meta-reflections (appropriate or otherwise)
- comments on previous messages, etc.

Note that the organizers can themselves insert messages, queries and announcements. The whole process may even be started several months before the conference (see "Editorial Pump Priming": Doc / E3).
Using the Da Zi Bao Process

Da Zi Bao is an interactive bulletin that will publish brief messages, proposals, comments and reflections of participants throughout the EcoCity 2 conference. The name Da Zi Bao is a Chinese phrase for "wall newspapers" -- a form of expression that allows ideas to be shared very rapidly.

Da Zi Bao is designed to help you use your personal resources most effectively in the conference. If you cannot find an occasion to say what is on your mind, then write it down. You can even do it when someone else is speaking. If you come up with an important insight when you are on your own, or in the course of informal conversation, you can write it down then, and share it with others through Da Zi Bao. The success of the Da Zi Bao process depends on the extent to which you and others use it.

Some things to keep in mind concerning Da Zi Bao:

1. This is a way for you to contribute.
2. If you are having difficulty in getting time to speak in plenary or in workshops, why not write down your message?
3. Writing down your insights concisely enables others to respond if they are not present in the current session.
4. If you have points which are not on the current agenda you can use the Da Zi Bao to communicate them -- the moderator may otherwise be obliged to stop your verbal intervention, for lack of time.
5. If you only have a brief point, why not write it down?
6. If you have complaints, procedural or organizational problems, this is one way to communicate them without disrupting the formal conference process.
7. This is a networking tool -- use it.

Some Guidelines For Messages

1. Write clearly.
2. Be concise -- 50 words maximum. Make your point in as few words as possible
3. Formulate your message so as to contribute to a positive conference process.
4. Refer when applicable to previous messages by the message number, and the issue in which it was published. You can cite those with which you agree, or respond to others, thus clarifying support for an initiative.
5. If lack of resources prevent us from publishing all messages immediately, priority will be given to: shorter messages, new insights, new contributors, concrete proposals.
6. The editors reserve the right not to publish messages which appear to abuse this communication process.
Guidelines for Use of Da Zi Bao

Participant Messaging for the '92 Global Forum/Earth Summit

The messaging system is an integral part of the dialogue. There are message forms with your materials and on the tables. They will be collected from you, collated, processed and circulated to the participants periodically.

Instead of speaking, you may find it more appropriate to formulate your points in writing - others outside this session will then also be exposed to it. Here are some reasons you might wish to use it:

1. Intervening non-intrusively
   - comments on points made by others
   - questions, possibly addressed to specific speakers
   - non-essential points
   - unrelated points
   - non-linear associations
   - position statements
   - supplementary information/details
   - case studies/examples
   - channel for observer comments
   - additional issues you would like to discuss

2. Augmenting your involvement as a participant
   - multiple communication tracks
   - maximum use of participant time
   - record of wall displayed messages
   - remarks on the dialogue process and programme

3. Cross-fertilizing ideas
   - feedback on interventions
   - cross fertilization of insights
   - interweaving preceding contributions
   - invitations to gather (whether during breaks or after this meeting)

4. Post-dialogue communicating and reporting
   - Interfacing with Forum-wide Da Zi Bao
   - capturing insights
   - creating a paper record
   - statements addressed to the press
   - proposals for declarations paragraphs

5. Reframing and meta-comments
   - humour, anecdotes
   - insightful metaphor
   - wisdom and philosophy
Participant messaging can be done in its basic form for very little cost. Naturally costs can mount if equipment needs to be hired and/or staff paid.

Costs can be minimised by:

- Use of volunteers;
- Donations of supplies (eg. paper) or equipment;
- Sharing of equipment and staff;
- Loan of equipment;
- Sponsorship by companies through donation of labour;
- Sale of bulletin (see "Sale": Doc / C4).

The following pages give an example costing for doing computer-supported participant messaging to a medium-sized conference (The Second International EcoCities Conference, Adelaide, 1992).
Abuse / Misuse of Messaging

Misuse of the process will depend on the nature and concerns of participants. Possibilities include:

Excessively long messages (exceeding 4 sentences) reduce the readability of the Bulletin and can be given a lower priority in typing or translation. Or a policy accepting only single sentence messages may be established (see "Forms" : Doc / D1).

An excessive number of messages from the same participant on the same point. An editorial decision may be taken to omit most of them or simply to refer to the fact that more messages on the same point have been received from the same source.

Abusive personal messages (e.g. derogatory criticism of a speaker) may simply be omitted if public airing of the opinion is unlikely to produce further productive interaction or be relevant to the group as a whole. But the person being disparaged may welcome the opportunity to respond in an appended note; some speakers welcome hecklers, and this is likely to be even more true with written comments.

Deliberately abusive impersonal messages may also be omitted. But if there is a grain of truth in the statement it can make interesting reading, possibly with an "editorial comment" attached. Some organizers may welcome the opportunity of responding to such messages in an "appended note".

Embarrassing messages or sensitive issues, such as the question "Who is funding this conference?" may either be omitted, carefully answered or referred to the person in question to handle privately.

Personal and dating messages again may simply be omitted or included depending on their content. A message such as "Anyone free for dinner in town after the Wednesday plenary?" may be acceptable. Qualifications as to desired respondents may not. (This is a problem faced and solved in different ways by newspaper advertisement editors).

Deliberate misuse of another's name is only likely to arise in rare cases. Falsification of identity may be detected by an observant assistant when the message is delivered or processed. Then it can quickly be corrected by a verbal announcement and a written message. This problem is more serious if the message is printed and person has already left the conference. A simple solution is described in "Identity" : Doc / E2.

Tampering with message boxes and removal of messages from boxes is again only likely to occur in special situations. Boxes can be locked or supervised, or abandoned altogether for hand collection.

Given the "pump priming" precedent (see "Pump Priming" : Doc / E3), participants may wish to ensure that the process as a whole is not subject to editorial manipulation. It is in this connection that the editorial committee option could be valuable (see "Editorial Committee" : Doc / E4). Sticking the original messages onto a wall display also allays fears (see "Wall Space / Horus Wall Display" : Doc / 17)
There is a simple solution when guarantees are required against falsification of the identity of the author of a message. Each participant is supplied with a pre-printed set of "interaction stamps" on each of which the unique participant number is overprinted. One stamp is stuck on to each message, certifying the identity of its author and rendering misuse very difficult. A stamp would not be necessary for anonymous messages or pseudonyms.

If costs are a consideration, participants can be asked to pay for a set of "interaction stamps". This method may also provide a way of distinguishing between participants permitted to interact (e.g. "full members") and those who are not (e.g. "observers"), or to ensure that their messages go into separate Bulletins. It may also be used to limit the possible number of written messages from different categories of participant.
There is great advantage to be gained from having the first issue of the Bulletin available as early as possible, and preferably in the participant’s folder on arrival. The reason is that it constitutes an immediately comprehensible explanation of the process (which otherwise is too easily categorized as an elaboration of the conventional "suggestion box").

In order to get the issue out quickly, the "editor" should:

(a) request comments from those available just prior to the conference,

(b) extract significant comments from pre-conference correspondence,

(c) generate a few stimulating comments himself.

This is unnecessary after the first few issues have launched the process.

see also "Maturing the Process" : Doc / E11; "Editing" : Doc / E12; "Editorial Pre-Processing" : Doc / E10; "Turnaround / Frequency : Doc / S6
Unless the conference has one official language, mono-lingual emphasis should be down-played. Psychologically this is extremely important. It is also a key to cross-cultural communication.

At international conferences it is ideal to be able to accept messages in several languages. These can be reproduced as written and/or translated.

The approach to translation will depend on the relative importance of enabling communication between those using different languages. Translating between French/English in a Canadian setting may be less a priority than in a pan-African setting. Obviously translation increases delay and cost, but it may well ensure vital communication (particularly when interpretation is weak).

However important the translation process, it should not be a reason to slow down the message turn-around time. It is better to give priority to getting the messages out in the original language and keep up as best one can with the translations (in the same way as with "slow-tracked" messages - see "Editorial Pre-Processing" : Doc / E10).

There are various tricks in handling messages for translation. For example, they can be numbered and laid out on their own page, such that the typed version returned by the translator can be used as a page of the Bulletin. Other possibilities are:

- insert the message as received without translation. This involves the minimum effort and delay, but confines communication within language groups;
- pass "other language" messages to translators, with the object of including them in the Bulletin in the "major" conference language after translation;
- translate all messages into each conference language with the object of producing the Bulletin in different languages editions (preferably reproduced on paper of different colours to distinguish them);
- translators who type can more efficiently do both processes at the one time.
The **Bulletin** is reproduced from a master copy which can be compiled in various ways.

**Hardcopy**

A hardcopy master would be a typed sheet (see above) or a printout from a computer file. In the latter instance, a far higher quality of print and image is possible, but not to be assumed, dependent on the capabilities of the operator, word processing software and/or printing equipment. Whilst desktop-publishing programmes can apparently effortlessly turn out superb copy, it is still possible to produce good-looking **Bulletins** in the same time using "cut and paste" techniques.

**Customised**

Desk-top publishing programs and modern versions of most word processing programs can produce very fine looking layouts. Enhanced by special fonts, boxes and other devices, the **Bulletin** can take on a truly professional appearance.

It is of course possible to display one or several masters on a bulletin board, perhaps enlarged to A3 size for readability. This may indeed be adequate for some meetings, but much is achieved by giving participants a complete set of all messages to mull over at their convenience, rather than whilst crowding in front of a bulletin board.

The best format for a **Bulletin** appears to be A4 size single sheets, printed on both sides. If the number of messages is large, an A3 sheet could be justified. Single sheets with no staples keeps the production workload down and **Bulletin** frequency high.

**Stencilling**

A stencil (mimeograph) or cyclostyle master would be typed directly from the original messages. Minimal editing is possible and the quality of layout and appearance is very much in the hands of the typist.

Mimeograph stencils have the considerable advantage of production by simple and generally reliable equipment. Hand-driven machines enable multiple copies to be produced even in situations without electricity. The process is also relatively inexpensive.

Wax masters are cut with typewriter keys, otherwise identical in procedure to typing with ink ribbon and paper. Corrections are possible, but time-consuming and never perfect, so typing accuracy is preferable. The master is pressed on to a circular inked drum and the copies are direct ink impressions of the revolving master onto each sheet of paper. **Bulletins** printed from stencils have a more fuzzy and/or unpolished appearance than the more sophisticated methods.

Less common forms of direct printing from masters (eg. cyclostyle) may be limited in the number of copies that can be reproduced.
Language Characters

For multi-lingual conferences, it important to remember that some languages take their accents very seriously! If the typewriter or computer cannot handle special characters, accents may have to be added or deleted on the master copy by hand.

See also "Paper" : Doc / II; "Power Supply" : Doc / II5; "Crashes and Backup" : Doc / III)
Coding messages by relationship, by type and by conference structure allows them to be selected and grouped in a variety of ways. Messages should preferably be coded by the author, but an alternative is that the coding be done (or extended) by an editorial team:

- by **message type**: distinguishes messages by the form of their communication (request for information, response, etc) (see "Categories of Message": Doc / E8);

- by **keyword**: distinguishes the subject matter of messages, bearing in mind the difficulty of ensuring unambiguous keywords in a conference situation (see "Keywording": Doc / E9);

- by **conference structure**: distinguishes messages in relation to thematic sections of the conference;

- by **language**: distinguishes different language versions (all forms of which may or may not be available, depending on the policy and capacity of the translation system); eg. 1023E/1023Ef/1023Es code the same message No. 1023 in the original English and French and Spanish translations).

The editorial team, possibly supported by information from various factions and working groups, may find it convenient to constantly scan and sift through the range of messages to feed in (and perhaps delete) coded relationships to strengthen and sharpen the substantive focus. This suggests the presence of several other types of record in the database:

- Issue/topic records: which hold references to all messages touching on a topic
- Working group records: which would hold references tied to a working group; the group might, or might not, cover a whole issue or group of issues
- Author records: which would hold all references made by a particular author

Thus a working group on a particular issue might ensure the addition of references to existing messages, or might "reject" references from some messages as irrelevant. Clearly each of these record types could be the subject of alternative hardcopy outputs as indexes to the sequence of messages (see also "Database Services": Doc / C2).

There is an interesting further development to allow different "coding philosophies" to be applied by different coding teams. These might be in competition with each other to offer different insights into the conference process, even selling their overviews to the participants in hardcopy form for a price. This might be done with parallel databases: one for the message sequence (and its different language versions); and one each for the alternative coding systems.

To avoid coding problems arising during the conference:

- coding could be omitted;
- coding could be done at a later stage (possibly after dissemination) if appropriate;
- allow for multiple coding (eg. a text containing both "support" and "opposition" to an earlier message should be coded as both);
- codes could of course be changed subsequently if necessary.
Classifying and subsequent analysis by message type can improve an understanding of the pattern of relationships between messages. Distinctive clusters might include several types of messages:

**Statements:**

1. Problem statement: Argument establishing the nature of a problem
2. Solution statement: Argument clarifying the nature of the solution required
3. Action proposal: Where the text is structured as a proposal or recommendation
4. Substantive comment: On the substantive issues
5. Procedural comment: On the procedural and organization issues
6. Denials: Statements by which participants deny messages falsely attributed to them (a response to the issue of author IDs in the absence of verification)
7. Miscellaneous / Uncodable / None of the above

**Responses/Reactions to Other Statements:**

1. Support: Statement in support of some other message.
2. Opposition: Statement in opposition to some other message
3. Reference only: Where a citation is neither in support of in opposition to a previous message, but simply makes reference to it
4. Irrelevance: Indication that a reference to it made by another message is irrelevant (to be made notably by a working group endeavouring to distinguish what it is focusing on from a clutter of other issues on peripheral topics)

**Structuring of Pattern of Statements:**

1. Summary: Statement summarizing the situation in the light of previous messages by drawing together the different aspects of a discussion (and clustering the references to them)
2. Articulation: Statement amplifying or elaborating some aspect of a previous message (namely the exploration of detail)
Da Zi Bao -- a Chinese phrase meaning "wall newspaper" -- is an experimental process designed to support conference participants and organizers in having the conference be as effective as possible for all involved. The messages submitted to Da Zi Bao are published in a bulletin during EcoCity 2 -- and after the conference, for some charge, as a consolidated index arranged by keyword.

Da Zi Bao was developed for Roots of the Future, the International NGO Conference held in Paris in December 1991. EcoCity 2 is the final test of Da Zi Bao before the Earth Summit / Global Forum to be held in Rio de Janeiro in June 1992.

Completed messages for Da Zi Bao can be left at the Da Zi Bao desk or in the Da Zi Bao boxes.

Please check any of the key words below that apply to your message, and add new key words, if the ones listed below are not adequate to classify your message.

- Access
- Aged
- Aesthetics
- Alternative energy
- Alternative technology
- Architecture
- Art
- Bioregions
- Challenges
- Children
- Climate
- Commerce
- Communication
- Community
- Conflict resolution
- Consumption
- Contradictions
- Cooperation
- Creativity
- Culture
- Decision making
- Democracy
- Demography
- Development
- Direct action
- Economics
- Ecovillages
- Education
- Empowerment
- Energy
- Entertainment
- Equity
- Experiments
- Food
- Gardens
- Governance
- Grassroots
- Health
- Heritage
- Housing
- Human rights
- Identity
- Images
- Implementation
- Indigenous
- Industry
- Information
- Infrastructure
- Innovation
- Land ownership
- Landscape
- Land use
- Law
- Lifestyle
- Media
- Megacities
- Natural resources
- Nuclear
- Objectives
- Open space
- Participation
- Population
- Poverty
- Planning
- Principles
- Privatisation
- Property rights
- Recreation
- Recycling
- Rivers
- Self determination
- Social change
- Social networks
- Social services
- Spirituality
- Strategy
- Sustainability
- Toxics
- Traffic
- Transformation
- Transport - private
- Transport - public
- Urban design
- Urban consolidation
- Values
- Vegetation
- Visions
- Waste management
- Water
- Wildlife habitat
- Women
- Youth
- Zoning
- Other
- Other
The contents of each Bulletin should provoke participants to formulate further messages in reply. Other messages will be formulated irrespective of previous comments. In this way new issues of the Bulletin are produced and the process is continued throughout the duration of the conference and even as a postal continuation of the conference.

It is useful to attribute a simple sequence number (e.g., 1023) to new messages so that they can be unambiguously cross-referenced, cited, etc. There is also advantage in having a standard minimal reference to previous messages by their number (e.g., 3/59: meaning Bulletin issue 3, message 59; although 59 would be sufficient).

Note if the number is generated instantaneously, authors may want to know early on "what is the number of my message?"

Variants of this are:

- Hand-stamping each form on receipt with an sequential number machine. If strictly consecutive according to time of receipt, this could also be useful in charting the development of issues in the conference and in tracking where a message might be in the process.

- Pre-numbering of all the forms distributed. Pre-numbered forms could also be a design aspect of a method to get quantitative data on, say, messaging rate and participation: "who messages?", "how much?", "how many of the first day's forms have been used?", etc.

Keywording is another way of relating messages. The author could provide keyword(s) or this could be added by the editor. Keywords can be used to selectively compile messages in subject or topic areas - perhaps for a task working group.

An example of a pre-printed message form with keywords selected for the conference area is given opposite.

see also "Pre-Processing" : Doc / E10
It is necessary to decide whether to edit the contributions. This can be called editing at the "message level", to distinguish it from editing which is done at the "bulletin level" (see "Editing : Doc / E12; "Maturing the Process" : Doc / E13)

There is some flexibility in the amount of time used for the message pre-processing - as well as in the strictness with which each of the review criteria is applied. Review time can be varied depending on the extent to which a backlog of messages is accumulating.

Sorting by Type

If there are many messages arriving and the frequency of publication is also high, it may be useful to separate of messages on the same topic to maintain the sense of variety in the Bulletin (see also "Coding" : Doc / E7). It may also be good to separate messages from the same person, if someone has enthusiastically inserted several, and to mix wisdom statements, rhetorical questions, humorous, serious and other messages.

Sorting by Priority

At this stage, there is also the opportunity to "fast-track" and "slow-track" messages. For example, non-complying messages which require considerable editorial effort (too long, difficult to read etc.) could also be set aside in order to keep up a high rate of processing all messages (see "Turnaround / Frequency" : Doc / S6; "Bottlenecks : Doc / S5). (If the messages are collected personally, a quick check for compliance could be made by the assistant at this stage).

If a message comes from someone who has already submitted several messages, it can be assigned a low priority. An excessive number of messages from the same participant on the same point could be dealt with by an editorial decision to omit most of them or simply to refer to the fact that more messages on the same point have been received from the same source.

Maintaining a Balance

"Stacking" the box with messages in support of a factional viewpoint is more difficult to detect, but could be handled as with an individual who sends multiple messages (see paragraph above). Alternatively, a representative of the faction could be invited to summarize the contents of the messages received, perhaps in a "special supplement" to the Bulletin.

Higher Orders of Sorting

The editorial group can put more effort into sorting the messages at this stage (see "Coding" : Doc / E7). Related messages could then be grouped within an issue of the Bulletin according to conference agenda item or even by message type (cf. previous paragraph). If appropriate, or if the number of messages justifies it, each group of messages could appear in separate Bulletin series (perhaps on differently coloured paper) and only distributed to those involved with the theme in question.
What is appropriate editing of messages and what is not? Ideally messages would be transcribed as they are written, but changes and corrections would be appropriate for, say, spelling errors, nonsense, extraction of key point(s) from overly long messages (see also "Pre-Processing: Doc E/10"). Proofing and checking are vital tasks, made easier by "spell-check", "view page" and other sophisticated software functions.

Editing is best kept distinct from layout and production tasks. If the editor is obliged to worry unduly about production/distribution problems, the shift from orderly reproduction to "higher order" configurations does not take place.

Is editorial intervention appropriate on censorship grounds? We have found that misuse of the messaging process is unlikely to be a significant editorial concern in most cases¹ (see also "Abuse and Misuse": Doc C1).

It is important to be sensitive to the language frustrations in handling the communications. Such considerations may affect editorial decisions. Minority language groups easily build up and feed resentments if they feel that they are being sidetracked. The preferences or suspicion of the organisers can also, perhaps quite unintentionally, easily downplay the "communications holes" and in ways which damage its effectiveness of the interactive process.

Editorial intervention can do much to shift the role of the interactive Bulletin beyond simple "unilateral" or "bilateral" messaging, and so raise the level of dialogue into new spaces. Essentially the editorial goal should be facilitation of fruitful interaction, the building on earlier messages and convergence on joint conclusions/actions, etc. (see also "Maturing the Process": Doc / E12; "Mapping": Doc / E13)

It seems that if messages do not fulfil the sender’s expectations, subsequent messaging may deteriorate. This is a challenge to the editors to intervene in the messaging process so that messages reinforce each other (see "Maturing the Process": Doc / E12)

The editors could also take a more active role, inviting or generating other texts, so that the Bulletin also has a newsletter function, or is used for texts of draft recommendations, etc. Of course, special selections and publications can also be compiled (see "Database Products": Doc / C2).

¹ An interesting parallel is the citizens band (CB) radio. The messaging process provides a "citizens band" at a conference but with more possibilities for weaving the messages into a new pattern of significance. Using potential misuse as an argument against the process may well signal the presence of more fundamental problems.
One of the main interests in the development of participant messaging is the notion of "insight capture", as opposed to "data capture". Insight capture means to move beyond the information overload problem at conferences and at the same time to avoid loss of valuable contributions. It could be thought of as the next generation of "minute writing".

Where conference "insights" are messages treated as database records, they can be interrelated so that a pattern emerges and can be addressed and improved. Thus formal messaging helps to separate various levels of "noise" and lends itself to higher level (re)orderings (see also "Mapping": Doc E13).

It is perhaps too early to generalize, but it would appear that there are some characteristic responses of participants to the freedom offered by this process:

1. One distinct group of messages includes:
   - enthusiastic advocacy of some special course of action,
   - humorous insights (possibly about organizational arrangements),
   - wise, philosophical, meta-comments.

These essentially invite participants to subscribe to a point of view which is not integrated into the subject matter of the conference at the level at which it is being discussed. At best they are alternative perspectives, introducing new dimensions which are often challenging, although possibly perceived as unconstructive. But "motherhood statements) (e.g. Peace is good) may also emerge.

"I was a little surprised by the emotional response to Barbara's talk. I saw it as an informative scientific history, entertainingly presented. Our choices and many implications are yet to be discussed. Were we brought to our feet by lights and music?" (Helen, Findhorn, 1979).

2. Another common group of messages includes:
   - critical comments on plenary statements and conference objectives
   - appreciative comments
   - messages reacting to the content of other messages.

Clearly these are part of a dualistic dynamic in which advocates of A or B criticise or appreciate each other's perspectives. At worst, it deteriorates into emotional hostilities or mutual admiration. At best, they energize the whole discussion, define its dimensions, and stimulate its evolution.
"This conference is really about how to admit the existence of god without embarrassing your friends or upsetting your concepts" (Anon, SGSR, 1979).

"UK NFP agrees entirely with proposals 41, 42, 43, 44, 45 and 46 in Bulletin 2, which could be adopted in major NFP's linked with library services to benefit users and make for better working" (W Pearson, UNEP/INFOTERRA, 1979).

3. As a result of messages of the previous types, a further type may emerge:

- mediatory comments attempting to reconcile extreme positions
- recognition of complementarities and relationships
- evaluative comments comparing several viewpoints.

Such statements help to weave perspectives together into a meaningful whole, but they may fail to get beyond a superficial placatory level.

4. A fourth group includes constructive proposals building on constraints and possibilities recognized in the debate. These will include some which, however constructive they are, fail to take account of how the proposal is to be initiated.

"Is there anyone who would be interested in contributing towards an evening of sharing - through music, poetry, song, dance, etc. to create a spontaneous spirit? If so, please speak to Richard Frost at Cluny" (Findhorn, 1979).

5. A fifth group of messages reflects a willingness of the participant to take responsibility and act concretely in the implementation of a proposal. But again this will include feasible projects of a kind which has been of questionable value in the past, despite the enthusiasm with which they were then carried out.

6. A sixth group of messages reflects a sense of history, of collective learning, and a recognition of recurring patterns of discussion (in relation to previous meetings or other contexts). These may be very helpful in educating newcomers and introducing a sense of strategy. At worst, they may be discouragingly sterile, offering little hope for new initiatives - the sterile wisdom of those who have failed in the past.

7. One can perhaps argue that a seventh group of messages reflects a special awareness of the uniqueness and strategic value of the conference. Other groups of messages may also be usefully distinguished.
Whether the above grouping is any more than a crude guideline is not important. The problem is to encourage a sufficient variety of messages to prevent a preponderance of those from Group 2 or 2, and a deterioration into "conference graffiti". This is specially important at the beginning when the tone of the exchange is set.

A Bulletin editor (or editorial group) of participant status can to some extent insert messages to correct for any such preponderance and "upgrade" the process.

To some extent the art of improving the process lies in allowing any such preponderance to stimulate participants to respond with corrective perceptions. But unless the interaction process "feels right", it will not be used as a vehicle by some whose comments would most help to balance and improve it (e.g. comments in Groups 3 to 7). Note however that each group of messages can provide an important contribution. A preponderance of Group 7 is as unproductive as a preponderance of Group 1.

This is a problem of judgement and intuition. Too much editorial intervention erodes the value of the process. Too little intervention may lead to the proliferation of trivial or purely negative comments and lead to a "spastic" condition. Participants should be made aware of this problem by "editorial comments" as the final messages in a Bulletin issue.

There has been so little experience with the process that at this stage it is probably better to minimize editorial intervention. But in the future, with experience and editorial group will probably be able to guide and stimulate participants quickly into mature interaction with a rich variety of comments. This demands a special skill and could give rise to a new conference profession. Perhaps it may then be possible to weave disparate comments into new patterns of significance (as suggested in "Mapping" : Doc / E13). Possibly real breakthroughs in conference productivity could be achieved by allocating significant attention time and resources to this process.
"Mapping" is an advanced procedure by which the relationships between:

(a) participants and/or  
(b) topics is depicted in pictoral/graphic form.

For example, participants may be grouped according to the degree of similarity in their responses to a defined set of comments (which could be listed as a questionnaire in an early issue of a Bulletin, and may be either statements designed by an editorial committee or statements received from participants or a mixture of both). The procedure uses statistical techniques, is best processed by computer using matrix correlation software, and requires some special expertise on the part of the designer. Such maps, distributed as hardcopy, can give people a sense of context, the pattern of the conference proceedings, and so allows the issues of conflict, fragmentation and coherence to be more effectively addressed.

Computer graphics could be used to draw maps of the networks of concepts or people described in the previous option. Once this is operational, such maps may be used as non-textual annexes to the Bulletin. They could provide pictoral overview and constitute a focusing device for comments, possibly leading to more precise maps, or alternative maps. Such maps would of course constitute non-linear agendas.
It is very effective to use different coloured papers for each Bulletin, particularly if issues are coming out frequently. Participants can distinguish easily and quickly between old and new issues (or different language or subject issues). Dark, intense colours, particularly reds, and "neon" colours, are less suitable.

You can now get a range of recycled paper stock in several subtle shades in most parts of the world. The compatibility of recycled paper and photocopiers has greatly improved in the past few years. This is not to be assumed, however. The short fibres of some recycled papers can foul certain machines resulting in paper-jams. This most commonly arises when printing double-sided, when the paper is passed through the machine a second time. Such paper can also become very brittle with double-sided copying, when it is unable to negotiate the paper path - again causing frequent paper jams.

Paper quality can vary enormously. Avoid thin paper, which is liable to wrinkle up when passed through a photocopier a second time. Environmental humidity and the moisture content of the paper is another cause of difficulties, particularly with "softer" papers. Paper is best when brought fresh from the manufacturer, used from unopened packets, or when opened, stored in relatively dry conditions.

The United States uses imperial paper sizes (for printing, most commonly 8" x 11" or "quarto" size). Most other countries use the A,B,C... standard formats, eg. A4 (210mm x297mm) for general copying. Some countries use a longer sheet ("foolscap" or "legal") as standard. Local paper size may be important if you use desktop publishing software or foreign-made printing and photocopy machines with non-adjustable paper trays.

Single sheet A4 (or similar sized) Bulletins require no collation and stapling. They can be filled relatively rapidly and so serve frequent release of new messages. A doubles-sided and folded A3 (folio size) sheet would be an alternative format for long contributions or very high volume of messages.

see also "Photocopiers" : Doc / I12
The basic procedure for an interactive Bulletin is so simple that few special arrangements are required. The decision to implement the process can even be taken on the eve of the meeting. The work is mainly typing (unless there is translation) and may require one person for an hour or two per day at most. Clearly, if the volume of messages is high, much more time could be required. If the necessary to depend upon a staff person with other commitments, it is important to ensure that this process has adequate priority. This is really a test of the organizer's commitment and if the organizer takes decisions which effectively decrease its priority and importance, this will be sensed by participants.

A preferred arrangement would of course be a specially allocated "Participant Interaction Office" where typing (and reproduction) could take place, namely a fixed location at which people working on the process could meet. There are often participants who are enthusiastic about processes such as this and quite willing to assist.

You will need space in which to work. Here is a checklist to help calculate your space needs:

- Compile a list of all the personnel functions and equipment you need (see the Adelaide EcoCity conference example in "Costs and Cost Cutting : Doc / D4) as an example).

- How many people will need accommodation? (allow a minimum 2 square meters per seated person)

- What equipment needs space and how much? Allow movement and storage space.

- Which functions are best done in private space? Which in public space?

- Where in the conference facilities is the function best located?

- What space could be shared with other conference activities?
Word processing is the term for the advanced text-handling facilities of computers (over typewriters). Word processing may be relevant to Bulletin production in two ways:

1. As messages are entered directly into the computer, by the author or by a typist from the original. The capability to instantaneously correct and move words, and features such as "spell checking", used well can very simply reduce errors in typed material. In some ways it can compensate for a lower level of proficiency in typists - though usually at the expense of time (see "Typist" : Doc / P3)

2. During layout, messages can be edited, rearranged, ordered into categories, deleted etc. (see "Master Copies / Layout" : Doc / E6)

Special software enables word processing. Choose one that is well known. Training in its use may be needed.
Power

Adapting local power supplies to imported equipment can be quite time consuming, particularly in an unfamiliar city in a foreign country. Embassies, travel agents, libraries and occasionally your own power authority can usually help with information about the electrical supply in another country (see also "Power Supply": Doc / I15).

Voltage varies between countries. Foreign equipment may require voltage adapters or transformers. Electrical current (measured in amp[ere]s (A or Ma) and frequency (measured in Hertz (Hz)) can also vary and is critical for certain equipment. If you take your own equipment, check the specifications first. You may need to contact the manufacturer also.

Electrical plugs and sockets of different configurations can now be accommodated by two-way or universal adaptors which are reasonably easy to buy from electrical and travel shops.

You cannot assume that all powered sockets are earthed in different countries - and it may be that the sockets for earthed and non-earthed circuits are the same! Make sure by asking.

Paper

Paper is not identical around the world. Size standards and quality can vary considerably (see "Paper": Doc / I1). Local paper size may be important if you use desktop publishing software or foreign-made printing and photocopy machines with non-adjustable paper trays. Paper quality or grade can be critical for uses which require certain standards of density and surface - such as photocopiers. An all-purpose standard is bond paper of around 75-85 gsm (grams per square meter).

Language/Character Sets

Keyboards vary. The standard "QWERTY" keyboard used for the English language is replaced or modified to some degree in other countries which use the basic Roman alphabet. This has implications for touch-typists.

Modern computer software enables keyboards to be tailored according to the country you are in (again within the basic Roman alphabet). Software often has strong cultural bias - for example, WordPerfect is strong in accommodating accented characters used in northern American and European languages but weak in southern eg. Spanish/Portuguese. With a few more keystrokes it is also possible to generate any character directly from basic ASCII character sets or to compile characters. Functions such as macros are useful shortcuts.

Other language groups may have less sophisticated typing technology. Standard practices should be checked in advance. Hand writing should not be discounted as a possibility.
Why more paper? A very valid question for a conference activity which purports to raise insights.

Indeed, paper is not the only resource consumed. Even in terms of environmental impact, it is probably the photocopier toner or electricity use which is more questionable.

The point is not so much consumption of resources, but judicious use of resources. Considering the investment of peoples' time, travel and energy to make the conference happen, what is the marginal cost of making it happen better - given that this cannot be guaranteed?

Some simple guidelines for minimising waste:

- Good planning
- Use recycled paper and recyclable photocopy toner if machines allow
- Efficient message collection and distribution
- Flexible systems
- Monitor demand and adjust quantity of the product
- Set up recycling systems for Bulletin production.
Message Board

Many conferences make available a "message board" for the exchange of messages between participants. This is seldom a high priority concern of the organizers and in its usual form it has little impact on interactive processes within the conference.

Purpose-designed message cards or forms (see "Message Forms" : Doc / D1) have the potential to move the contents of the message board away from personal and incidental matters, but are unlikely of themselves to give an interaction which transcends the usual conference experience.

Experience is that people like to read original messages, even though they are reproduced as a Bulletin. An advantage of combining the two forms is that the messages can be displayed as quickly as possible - if photocopies are taken, even whilst they are being typed.

Practically you need sufficient suitable vertical space at eye-level (1-2 metres above the ground) on which messages can be fixed (by pins, tape etc.). Not all meeting places have such facilities. Free-standing pinboards work very well.

Horus* Wall Display

Rather than simply sticking the message cards to a wall in any order, an editorial group could divide the wall up into sectors corresponding to conference themes and insert the cards (handwritten originals, or possibly typed or cut from the Bulletin) in the appropriate sector. Coloured ribbons could be used to link related cards in different sectors. A circular display could emphasize the integrative role of concentric sectors or the central sector.

* Horus stands for: Holistic Overview and Representation of Underlying Structure.)
Word processing software (see Doc / 13) enables text messages to be manipulated in many ways which are valuable for an interactive Bulletin: messages can be selected, (re)ordered, and inter-related. Where greater opportunities are desired for producing special selections of contributions, both during and after the meeting, there is an advantage in treating the messages as records in a database file rather than a text file.

We are now talking of a system with greatly increased power and complexity - sufficient to handle hundreds and thousands of items. Do you need it? You or someone on your team need to be very familiar with the data processing programme; count on the time needed to train operators and the need for system supervisors and expert technicians. At this scale you are almost certainly going to be using local and/or wide area networks, with their considerable advantages and drawbacks (see "Networks": Doc / 113).

Creating data software requires very high computer skills. A piece of custom software (Da Zi Bao) has been written by Robert Pollard and has now been tested at several conferences, including the Earth Summit/Global Forum in Rio in June 1992 (see "Case Studies" 6, 7 and 8 which used the "Da Zi Bao" software developed by Robert Pollard).

A final point, particularly in cross-cultural meetings, is that some people can be very concerned where data is stored and by whom it can be manipulated and hence are suspicious of databases based at unknown locations. This impression may be disappearing, but may still be a concern for people from certain countries or regions.
The present versatility of computers makes them undisputed assets to document production. There are two principal ways in which computers can be used to produce an interactive bulletin:

1. As word processors - in their role as sophisticated typewriters/typesetters (see "Word Processing": Doc /13)

2. As data processors - in the role as manipulators of messages and characteristics of messages (keywords etc) (see "Data Processing": Doc /18).

Computers need compatible printers and operators. There are several operating languages and a multitude of word processing software, which make life easy within their own software/hardware system but rarely facilitate ease of use outside their own environment. Easiest is to use a system that already works rather than try to assemble a new one for the purpose.

Investigations are already being made into the potential of computer supported messaging/conferencing systems at a conference site. Technically it is irrelevant whether the computer is on-site. What is important is the effective number of terminals on-site. When there are few, this option cannot be usefully distinguished from the previous one. When there are more, participant messages can be fed into the Bulletin from strategically located terminals by secretarial staff. When there are many, participants will then be able to do it themselves (e.g. from hotel rooms on rented terminals, etc.). But although the basic messaging concept remains the same, many other options become possible with computer support, or are affected by it: selective distribution of messages, voting\(^1\), translation and advisory services, precise charging for messaging services, editorial reordering and linkage of messages, etc. These have been explored elsewhere.

An increasing number of experiments are being made with computer conferencing as a means of linking people not present at a single physical location, such as a conventional conference site. The messages typed via terminal to the distant participants in such computer "conferences", and the messages received from them, can both be incorporated into issues of the Bulletin. In fact, to save typing, the locally-received handwritten messages can be typed directly onto the terminal, edited, combined with incoming messages, and then (a) produced from the terminal as a clean copy of the Bulletin issue for local reproduction and distribution, and (b) released over the terminal to the participants at distant locations, who may also reproduce it (see "Case Study 4").

However computers are used, keep alert that they should serve and not dominate.

\(^1\) When voting or opinion assessment is desirable, the message collection and processing service may be used. This may well avoid wastage of session time (e.g. roll-call voting, card voting, hand counting). Use of the "stamp" procedure discussed above avoids identity problems. When the range of questions is greater, an issue of the Bulletin may contain (or consist of) a questionnaire /vote form to be returned as with normal messages. If necessary a procedure analogous to the "reader service reply cards" to be found in some magazines could be used (e.g. a card consisting only of lists of numbers to be ringed according to participant interest in the questions to which they relate).
Conference environments are unusually demanding—rented equipment, improvised offices, people who have not worked together before, no familiar routines, ... Here are some of the more common causes of system failure:

**Machine breakdown**: power failure; hardware failure; computer viruses; overload; incompatibility.

**Personnel breakdown**: illness; overload; stress; incompetence; incompatibility; language and cultural issues.

**Organisational breakdown**: poor planning; insufficient staff; lack of support from conference organisers; unclarity on duties and roles; "holes" in responsibilities.

It is wise to expect some breakdowns; this means you will insure yourself with safeguards and backup functions to the extent you can. Ask "What if..." questions to focus on alternatives that you could fall back on if the unexpected or unthinkable happened.

Another good general practice is to keep your system design as simple - and appropriate to the environment - as is possible.
Photocopying is a very convenient method of reproduction, usually producing high-resolution copies of familiar and acceptable quality. Different colours of paper can be used to distinguish each Bulletin issue (or subject or language group).

Demand for photocopying facilities at conferences often exceeds their capacity. It is very common at a conference for processing of reproduction demands to be subject to severe bottlenecks - especially on the last afternoon. Sometimes there are "red tape" delays in the use of the photocopier.

It is best that the Bulletin has its own machine, otherwise it may not be able to maintain reproduction when others can requisition machine time. The dedicated Bulletin machine can then also be available for small production requests by others, on a second priority basis.

Since the value of the interactive process increases with the rapidity of the Bulletin cycle, alternatives should be examined if photocopying appears problematic (including stencil, cyclostyle, and even simpler forms of reproduction - see "Master / Layout": Doc / E6; "Typewriters": Doc / I16).

Breakdowns are notorious with photocopy machines (particularly "strange" ones with "strange" operators, both of which are overloaded with work). Experience shows that the frequency of photocopier breakdown is greater with machines:

- used by many people and without supervision;
- moved from their original location;
- with different paper stock than usual (see "Paper": Doc / I1);
- with greater workload than usual;
- not serviced regularly.
There are two ways in which computer networks can be used for improving interactive communication at conferences. One is behind the scenes - simply to multiply the capability of the secretarial/editorial team (see "Data Processing Software" : Doc / I 18). The other is where the Bulletin editor and/or conference participant can use the network for messaging as part of the conference process.

Electronic networking is a marvellous technology when practised by initiates. For an average conference group it may be alienating or irrelevant to their participation in the meeting dynamics. Some grounds for this (which have been noted from a number of meetings where messages and summaries were being uploaded and downloaded):

- the majority of the on-site participants unaware of the process; it was not seriously integrated into the conference framework by the organisers.

- location of the "communication centre" such as to discourage casual inquiry by participants, especially if at an international gathering such enquiries can only be made in English

- distancing of computer sophisticates from others

- intimidation of the uninitiated or politically naive by those who understand how conferences can be manipulated

- electronic junk mail and the seeming irrelevance of many of the downloaded messages, which reinforces any tendency to label such participation as "flakey"

- and general message overload

- discouraging form of the hardcopy (message layout, bizarre characters, etc)

- discouraging display of the hardcopy (people who consider themselves important do not want to be seen paying serious attention to print-outs stuck to walls)

An increasing number of experiments are being made with computer conferencing as a means of linking people not present at a single physical location, such as a conventional conference site. Both the messages sent via terminal to the distant participants, and the messages received from them, can be incorporated into issues of the Bulletin. In fact, to save typing, the locally-received handwritten messages can be typed directly onto the terminal, edited, combined with incoming messages, and then (a) produced from the terminal as a clean copy of the Bulletin issue for local reproduction and distribution, and (b) released over the terminal to the participants at distant locations, who may also reproduce it (see "Case Study 4").
If you are intending to use wide-area computer networks (such as global electronic mail/conferencing networks, do so because this offers significant additional advantages, such as long-distance networking capabilities which exceed "super-telex" and "super-fax". It is not sufficient to demonstrate that the technology exists and works. It has to mesh usefully with existing modes and move beyond them to further enhance the interactive process at the conference. It must also be accessible to the conference participants. This implies an adequate number of terminals and perhaps trained personnel to assist users. Technically it is irrelevant whether the computer is on-site.

Consider a bottom-up approach, building upon on-site standalones (PC's) or, more ambitiously, local-area networks (LANs). If all is working well, these may be used to download messages, in LAN mode, etc and to upload into wide-area networks. We caution against an initial "top-down" approach, even if you are extremely familiar with a wide-area networking facility and their distant hardware devices. The key word is to create a "robust" system which fails "safe" (mindful also of the frequency with which fail safe systems tend to fail by failing to fail safe!).
"Shrinking technologies" have furnished us with portable offices. It is now quite feasible to walk out of an airport carrying almost all you need to produce a high-quality interactive Bulletin (see "Case Study 7: InterSectoral Dialogue Meeting").

The advantages of portable equipment are:

- simplicity with freight and handling
- shortened setup time;
- flexibility (e.g., with minimum effort, effect a decision move the computer data entry to the back of the conference hall if this works better;
- in situations with conventional equipment, portables are valuable backups.
Check the availability of power at your meeting place. Also the number of electrical outlets. You may need extension leads and multiple outlets.

In some situations, electrical supply may be wired but not particularly stable or reliable. If you are using computer equipment in places where electricity current fluctuates, you may need surge protectors. Backup precautions (duplicate equipment, manual means of doing equipment tasks) are essential where power upsets are likely.

Voltage can vary between countries (see "Varying Standards" : Doc / 14).
The question around typing is not whether to type, but with what equipment. Basically the choices divide into 1) using a typewriter or 2) using a computer with word processing and/or database software. Even if you choose a computer-aided mode, it would be sensible to have a typewriter backup in the event of power failure or machine breakdown.

When using a typewriter, the messages received are simply typed one after the other onto a full-size sheet or paper suitable for photocopying (or possibly offset reproduction). Pre-sorting of the messages for special purposes, such as to add diversity must be done beforehand (see "Pre-Processing" : Doc / E10; "Editing" : Doc / E11).

Remember that each message should still be given a number (which can also be written on to the original message form/card) to facilitate reference to it in later messages. If the original messages are not displayed on a board, they (or their photocopies) can be kept as a reference file. Alternatively, or in addition, a hand-written index should be kept as a master record.

When the two sides of a full sheet have been filled with messages, this makes an issue of the Bulletin. Each issue should be visibly identified by a number (from 1 upwards), but the message numbers within them should not start from 1 within each issue - they should continue from issue to issue to avoid confusion (see section 3.6). Obviously, if there were many messages, several sheets could form one issue of the Bulletin. This involves stapling and collating operations which it may be better to avoid (see "Master Copies / Layout : Doc / E6). Stencils could of course by used if the desired mode of reproduction is by mimeograph (see "Master Copies / Layout" : Doc / E6).

Although the basic messaging concept remains the same with computer support, many other options become possible, or are affected by it: selective distribution of messages, voting, translation and advisory services, precise charging for messaging services, editorial re-ordering and linkage of messages, etc. (see "Database Products" : Doc / C2)
Bulletin production is much like that for a daily newspaper - work proceeds around the clock and may be most intensive when the conference participants themselves are relaxing, for example to produce an "early morning" or "after lunch" Bulletin.

Implications of this are several:

- "Normal" working hours should not be expected (see "Backlog and Overtime: Doc / S4);

- "Shift" work may be necessary to maintain continuing production;

- Replacement staff are necessary, particularly for repetitive work - typists for example should rest or do other work after a few hours;

- It is useful if people can backup each others skills so that the absence of a particular person is not a major complication (see "Roles" : Doc / P2).
Distribution of Roles

Most of the functions are time consuming. It is best if individuals take primary responsibility for each task. It is also very useful if each individual is competent in more than one task. This enables people to cover for each other.

Major roles are:

- Training and scheduling of personnel (particularly important for volunteers)
- Message collection
- Editing and format
- Distribution and sale
- Liaison with organisers; interface with presenters; relationship to minutes/working groups etc.)

One feature of participant messaging is to draw out the shyer, less experienced and confident participants. There is much to be said for having outgoing, enthusiastic people interacting with conference participants, encouraging them to express their private thoughts as public insights. Like diffident suitors, conference participants can be encouraged to relate and express rather than staying in a passive, receiving mode. The interactive Bulletin opens up the opportunities for general and focused interaction of this type.

The phrase "interactive host[ess]" - one who has personal skills to set people at ease, engage them in dialogue and judiciously introduce them to others - has been mentioned semi-seriously and probably should be seen as a more thoughtful light. It can only be speculated the degree to which one-to-one conversations in non-structured time at conferences is the most significant component for many.
The typist is a key person. Proficient typing means skill, speed, accuracy and an intelligent application to the task. The role is not merely a mechanical transcription of the handwritten message into typescript, although it can be limited to this; but in the hands of a typist who is sensitive to fluency of different participants in the language of the Bulletin, is attentive to the content of the message and is confident in correction of spelling and punctuation, who registers the flow of meaning of previous messages, who has a mature vocabulary, who is accurate, quick and can self-correct - much of the load of the editor/layout person can be handled at this early stage. If fact it is possible in small conferences for one multi-skilled person to handle all these tasks.

Almost anyone can use a keyboard. More typists can substitute for proficiency provided other resources are not limiting (such as the number of keyboards and the complexity of compilation from many sources). It is not just a "typing-time factor", however. Inefficient typists add greatly to the time required for routine proofing and correction. Consider the pros and cons of using professional typists as against volunteers.

It is a useful question to ask generally in which areas of the production process you want your strength and flexibility - for example, it would be if an unexpectedly abundant flow of messages was restricted by a system of "second-class" typing coupled with time-consuming proofing and correction, when one acceptable solution "in the moment" might be to print a "first-class" typed copy as it emerged and tolerate the few errors (see also "Turnaround / Frequency": Doc / S6)
Staffing the production of an interactive Bulletin is not always a matter of choice. Sometimes you must use people who are available: your own staff, volunteers, those offered by the conference organisers, etc. At other times there is greater freedom to choose and/or hire, even though in practice there may be restrictions for economic reasons or because the task must be delegated to someone in the foreign country where the conference is to be held.

The key criterion for staff is that they be very good at their designated task - ALL of them. Publishing an interactive Bulletin is like a production-line for a daily newspaper. Every step relies on the step before, which must be completed in time and to a high standard. A "typist" who cannot touch-type with accuracy, or an "editor" whose understanding of the issues and concepts of the conference is mediocre, will require others to compensate for inaccurate work and create bottlenecks in the process.

Likely bottlenecks can be anticipated and their effects buffered to some degree. This is because roles in the production of the Bulletin are rarely completely discrete: some computer technicians can type well; some typists would have the enthusiasm and competence to go out and promote the messaging facility to conference participants should the messaging rate falls; in fact this is an ideal situation when the team members have "backup" or "understudy" roles. The personal characteristics of such people are difficult to define, but include flexibility and maturity.

The numbers of typing and translation personnel are probably the most difficult to estimate. The amount of typing depends on the messaging rate: typists need regular breaks from keyboard work; there may not always be an adequate amount of translation for a language spoken by a minority of the conference participants. Above all there is the issue of straight efficiency. A fast efficient typist can do marvels that three inefficient people cannot match. And it should not be assumed that everyone has the ability to read assorted styles of handwriting. If computers are used, there is the added consideration of familiarity with the software, or ability to learn procedures quickly and easily (some excellent typists get "stage fright" in front of computer screens).

Some basic points to look for in the selection of personnel are:
- familiarity with technical language and issues/concepts of the conference (or a mature or widely-experienced person)
- typists who touch-type two or more languages
- translators who type
- translators who are truly bi-lingual - can translate fluently and accurately in both directions.
- translators who have multiple languages
- enthusiastic communicators who are excited by communication potentials and can transmit this to others.
- personnel who are proactive in encouraging participants to feed into what is experienced as an innovative communication alternative -- who can creatively "pester" people for comments between sessions.
For any experimental communication facility to work, it must have not only the passive support of the organizers but their active support. Experience has shown that it is not difficult to win the support of hesitant organizers once they see the process in action. But this is by no means the best way to implement participant messaging - it costs much in delayed start-up time and loss of early synergistic opportunities. It is worthwhile to have negotiated solid organizer support in advance.

Participants must see that the various front figures at the conference encourage their use of this parallel communication process. If this is not the case then it could easily become perceived as a marginal interest for a minority interest group. Leaders of plenary and group sessions should be spokespeople for the role and value of the messaging system. Take the time to brief them well.

Organizer support is also necessary on the practical side to reduce the time-lag between message formulation on paper and its input into the messaging system for output. Organizers who understand and value the role of the messaging activity will more willingly assist with giving priority time at the photocopier, or remembering the extra two minutes for message collection after each session, or whatever other usually small matters which add up to making the messaging system an integral part of the communication process at the conference.

You may be the organizer or a member of the organizing committee, in which case your job will be integration and overview - but it is essential that you have people with specific lines of responsibility for the various tasks (see "Roles": Doc P2).

If participant messaging, or one aspect of it, is your sole responsibility, meet as early as possible with others who could be important links with the established programme (eg. working group facilitators); also those involved with the organizational aspects (rapporteurs, sound recordists, etc.). You are likely to find many areas of cooperation.
Because the interactive process has the potential to stimulate itself and grow in an uncontrolled fashion, messages can build up and unexpectedly high workloads can arise in order to process the messages in a timely fashion.

The messaging process is alive. Its vigour is one measure of its success. It is difficult to predict and should not be regulated in ways unsympathetic to its objectives. It is useful to ask the question "What can be sacrificed without damaging the process?"

Here are some ways in which to consider managing temporary overloads:

1. Take on more people if support resources permit. Reallocate from other tasks, borrow from other groups, or ask for volunteers from the participants.

2. Streamline - eg. if the backlog is with the French messages, separate out the French from other languages and devise a process to handle them separately.

3. Cut out messages at an early stage by making editorial decisions about significance (participants should receive some explanation).

4. Relax quality standards for time consuming tasks - eg. layout (see "Layout" : Doc E6).

5. Encourage participants to input their messages themselves into the computer terminals.

6. Study the throughput process and identify bottlenecks (see "Bottlenecks" : Doc / S5).

See also "Shifts" : Doc / P1.
Any bottleneck in the messaging process has the potential to dam the flow of messages. If participants sense the process is stalled, they may also hold back their messages - which helps the congested system but is fundamentally counterproductive to the process because it limits insights and interaction. Better is to be alert to the likely areas of blockage and correct them before they become limiting. They can happen anywhere in the system, including the collection, editing, layout and distribution phases. Refer in particular to:

* Typing (see "Typist": Doc / P3)
* Translating (see "Multiple Languages and Translation": Doc / E5)
* Layout and Printing (see "Layout": Doc / E6; "Printing": Doc / I10)
* Inefficient process (see "Turnaround": Doc / S6; "Shifts": Doc / P1; "Distribution of Roles": Doc / P2; "Training": Doc / P4)
The "message turn-around time" is a key measure of success of the Bulletin. The more frequent it is, the more significant it appears as an alternative communication vehicle. If it slows down, the whole system loses credibility.

(a) At a frequency of one a day, it may well be out of phase with the speed of development of the meeting

(b) Twice a day is perhaps the easiest to manage with minimum organization

(c) If an issue is available at the end of every session (i.e. at meal and coffee breaks), it is well integrated into the conference process

Key factors to efficiently manage Bulletin production at an optimal frequency are fairly accurate estimates of messaging rate, typing throughput, and fast accurate typing. There is no excuse for having a system based on people "who can type" rather than on people "who can type efficiently - for extended periods". The issue of language skills may also be important (see also "Typist": Doc / P3; "Staff": Doc / P4; "Bottlenecks": Doc / S5).
You have either done this before ... or you haven’t. Either way you will need to allow time to setup and test your operation.

Be as self-contained as possible. Be especially careful with expectations of supplies, equipment, personnel at your venue. Confirm everything in advance. The extent to which you can expect your needs to be met at the venue depends on many factors, such as whether it (and/or the organisers) are used to hosting conferences, the amount of spare money available for contingency items, the formality of the conference, and its remoteness (in the world, language, culture, and in relation to "usual" services, eg telephone) (see "Crashes and Backup": Doc / I11).

Allow time to get the system working smoothly. This includes training of staff or volunteers (see "Roles": Doc / P2; "Volunteers": Doc / P5). Test procedures beforehand. If the conference’s first experience of participative messaging is disconcerting, enthusiasm will rapidly fall away.

Keep as simple and human as possible, whilst incorporating adaptability and robustness. Try to build a safety-net dimension into the organisation - whilst all the pieces may function very well, it is sound to provide a backup system if they do not. This also applies to people who feel that the structures imposed on them (with the best of intentions) are alienating and prevent them from getting their message across and interacting with like-minded participants.

And remember in the best of worlds, systems continue to fail. It is important to be aware of possibilities known to all who have set tested interactive conferencing to date. These include: vital hardware crashes, connections that don’t work, vital personnel who are sick, fuses, incompatibility where everyone swore there was "no problem", etc.
Feedback

Please let us know your views on the usefulness of the process and the manual. Suggestions for improvements are very welcome. Write to:

Anthony J.N. Judge  
Union of International Associations  
Rue Washington 40  
1050 Brussels  
Belgium

telephone +32 2 640-4109/640-1808  
telefax +32 2 646-0525

If you wish to have more information on the software and use of the "Da Zi Bao" process (which produces the interaction bulletin "Da Zi Bao" an example of which is attached), contact:

Robert Pollard, 801 Homestead Street, Baltimore, Maryland 21218-3536, USA.  
Tel: +1 301 243-2131; fax +1 301 243-7357;  
rpollard on EcoNet and GreenNet 2:254/70.76 on Fidonet.
Raising The Level of Dialogue
The Da Zi Bao process will be most helpful when more messages weave together insights evoked in earlier messages. This will serve to raise and deepen the level of communication. It will help to create a new level of coherence. It is this which could provide a context for insights of the greatest significance.

#JS-1, Tony Judge, Union of International Associations, BELGIUM

Tribal Peoples and Development in S-E Asia
A new book "Tribal Peoples and Development in SouthEast Asia" examines the impact of outside forces and state intervention on the lives of tribal communities in southeast Asia. Orders can be sent to The Editor, Lim Teck Ghee, Institute of Advanced Studies, University of Malaya, Kuala Lumpur 59100, Malaysia

#JS-2, Lim Teck Ghee, University of Malaya, Kuala Lumpur, MALAYSIA

Democratizing the UN System
There is a proposal for a 3-Chamber UN System, with one Chamber for Governments, another one for business and economy actors, and the third one for NGOs and Social Movements. Does it make sense to promote the UN System democratization and strengthening via greater and greater participation of citizens in it? Will it be a tool for us to build a politically democratic, socially fair, ecologically sustainable world order? Contact in Rio:

Brazilian NGO Forum Headquarters, tel: 2851212.

#JS-3, Carlos Aveline, UPAN - Uniao Protetora do Ambiente Natural, BRAZIL

HELP!
Things are getting so bad in my universe that I may have to ask you to stop helping me.

#JS-4, Anonymous

Can You Be My Friend?
If you try to lead me
I may not follow
If you try to follow me
I may not lead
If you put me on a pedestal
I may rise to the occasion
If you walk beside me
I may become your friend

#JS-5, Author Unknown

Fragment of a Song
"nothing to look for nothing to hide nothing to lose but our arrogant pride It's a crazy thing that we will have tried with nothing but a dream a dream for a guide..."

#JS-6, Tim Caswell, Creative Connection, UK

We Are Our Own Metaphor
The challenges of this opportunity of an inter-sectoral dialogue is that in many ways it provides us with a metaphor of why we collectively have difficulty in responding to the issues of sustainable development. Our weaknesses in this inter-sectoral process reflect our inadequacy in global strategies.

#IS-7, Anthony Judge, AUSTRALIA

Intersectoral Problem
A major unsolved intersectoral problem is associated with 'careerism'. To become first an accepted member, and then a leader of, or within, a sector - to develop our careers - gives us habits, mind sets, a paradigm, that is almost the opposite of what is needed for solving earth problems. We need a major mid-life paradigm reorientation program for leaders of every sector.

#IS-8, Alan Kay, Americans Talk Issues, USA

Preferred Futures
Many people think about the future, but most of the time it is the probable future rather than the preferred future. A possible future can be developed if we first attempt to describe what ought to be - as well as what we think will be.

If protagonists about the future first articulate their preferred future, then we can try to create a common preferred future from a series of alternative preferred futures. To fight over alternative presents divides, discussing common futures can unite.

#JS-9, Peter Ellyard, Preferred Futures, AUSTRALIA

Problem-Centred vs Mission-Directed Approach
Many people think about the future which lacks or has in diminished quantities present problems - they are problem centred about the future. Others envisage a future which has qualities we want or need, rather than just be a place where present problems are reduced or abolished. We should be mission directed in our approach towards preferred futures, rather than be problem centred in our approach towards probable futures.

#IS-10, Peter Ellyard, Preferred Futures, AUSTRALIA

Dialogue With Those Living Sustainably
The need for this conference exemplifies how far our culture has come from identifying solutions to the problems it has created. However, we must also recognise that we can't help but to identify solutions within this cultural context. Most of us also agree that our current (for the past 5000 years) economic model was based upon offering the physical system that created us. We need more institutionalised dialogue with people who are actually living sustainable development.

#IS-11, David Rivard, California World Foundation, USA

Inter-Sectoral Dialogue Meeting
Rio de Janeiro, 1 - 2 June 1992
A Pentagram
* Economic development without ecology leaves a wasteland
* Ecology without economic development preserves poverty and injustice while providing a nice view
* Equity without economic development only shares poverty
* Ecology without empowerment becomes part of the structures of oppression
* Empowerment without ecology allows for collective and equitable self-destruction.

from Richard Levens, Oxfam, Boston, USA in today's Earth Summit newspaper. My address in Rio: Barra Beach Hotel
#IS-12, Peter Ellyard, Preferred Futures, AUSTRALIA

Alice’s Restaurant
Let us imagine the sectors coming to the centre to eat.
The table is bare, waiting.
We want enough to eat, with balance for/from all.
What would each bring to the meal, to share?
What single nourishment, from our own ‘kitchen’ is edible in collective-nutrition?
(The bringing = the process-act; the food = the substance, self-selected from our individual expertise)
#IS-13, Anonymous

Global Financial System
Money Monopoly
3 scenarios of devolution of this global money system in the 1990’s.
1. Internal disordering due to speed of electronic currency, stock, bond and derivatives trading - depression? default? etc.
2. Money (currencies) now equal to Information. Local groups, peoples now understand this. Creating local barter/exchange via radio, computers etc.
3. 5 billion humans’ energies can no longer be contained, disciplined or motivated by existing global money systems. Demands for new "scrip", "new global Resources Bank", "new local 'currencies".  
#IS-14, Hazel Henderson, Author (Atlantico Copacabana Hotel), USA & UK

New Indicators for Sustainable Development
Can we get a show of hands as to which delegates support changing the gross national product (GNP) systems of national accounts, eg: UNDP's new indicator "Human Development Index" (HDI)
Net National Welfare (NNW) Japan Index of Sustainable Economic Welfare (ISEW)
Country Futures Indicators (CFI)
Hazel Henderson
#IS-15, Hazel Henderson, Author (Atlantico Copacabana Hotel), USA & UK

New Ways Are Old Ways We Have Forgotten
I hope we won't be too intellectual. Although we are looking for new ways there are basic earth facts at the root of the mess we are in on our planet. Destruction by overconsumption and suffering of people and earth by exploitation are a part of the western model that is fast taking over the earth.
New ways are old ways of harmony with the earth. This is the message of all indigenous people. Sustainable development is a new word for age old ways. We must all look at the contradictions in our lifestyles and teach by example holistic sustainable living.
My address in Rio: Youth Office Gloria Room 461.
#IS-16, Bridget Van Rensburg, Youth '92 & We Create Our Future, SOUTH AFRICA

Preferred Futures
Suggestion (Peter Ellyard): "Solicit a variety of Preferred Futures, then look for a Common Preferred Future."
Fundamental problem of knowing what is a REALISTIC preferred future, eg: maximum material/energy affluence and maximum environmental preservation (social justice, equity and peace aside). Where do we find the balance?
Who is capable of assessing which future visions are realistic and which are too fantastic, radical, unrealistic?
In Rio tel: 2946317/email gholland@ax.apc.org
#IS-17, Geoff Holland, University of Wollongong, AUSTRALIA

Intersectoral Dialogue
We would like to know where are some important sectors such as: indigenous peoples, trade unions, campesino organisations, social movements. Don’t you think we are missing a big, big part of the whole?
#IS-18, Alpizar/Riquelme
Lydia/Monica, COSTA RICA/MEXICO

Globality
Model/Future-Directed Actions
The economic benefits that are inherent in sustainable development only become visible when viewed within the globality model of our discussion. Across sectors, across industries, and across regions there are measurable economic benefits which are constantly disrupted by the limited vision or view of each player and their self-interest. By identifying the ultimate beneficiaries of these actions (future benefit) and using a small part of that benefit to support environmentally informed action (current benefit) we begin to act in a new way.
#IS-19, Randolph Craxton, American Institute of Architects, USA

Trade and Development
Many experts assert that freer trade brings about economic growth of nations: GATT is a typical example. But the fact tells that trade very often causes enormous environmental costs to both exporting and importing countries. We therefore need to examine seriously what are the outcomes, who are endangered, and what alternatives can be taken up for sustainable development of our concern.
#IS-20, Ryohei Kada, CASA-OSAKA (Structure #30, Japan Centre), JAPAN

Focus After Rio
We should focus on key problems after Rio, and make a priority list of what we want to achieve. The process is just a tool to get there.
#IS-21, Jan-Olaf Williams, ICC, NORWAY

I'm Disagreeable
Please don’t make declarations in my name
- I may want to disagree 
#IS-22, Anonymous

This is an experimental process. It will evolve and succeed according to your use of it.
CASE STUDIES

The messaging process is so simple variations of it have already been explored in a number of contexts in the past. The following cases are a good illustration of the variety of possibilities.

Case 1 (Professional/academic): At the first international conference of the Society for General Systems Research (London, August 1979) a "meta-conference" was launched by an eminent ex-president of the Society, Professor Stafford Beer (UK cybernetician and one-time computer systems advisor to Chilean President Allende). In an opening speech he invited the 200 participants to formulate fundamental statements relating to the theme and sub-topics of the conference. These were left in a box, then reviewed by an editorial group consisting of himself and two other eminent colleagues. The result was distributed to participants as a numbered list of 70 statements in English. Participants were invited to indicate on the document whether they (a) agreed (b) disagreed, or (c) were indifferent to each statement. The document was then returned via the box with the name of the participant. Further comments were also invited. Using the technique mentioned in "Mapping" (Doc E13), wall maps were produced overnight showing the networks of participants and issues. A new document was distributed incorporating a numbered list of the more central issues perceived by participants together with those new comments accepted. The cycle was repeated giving a total of three computer runs.

Comment: The process interested participants greatly, if only in terms of the concentration on questionnaires during coffee breaks. The main delays were due to lack of typing/data input personnel. There was criticism of the statistical methodology, which was accepted and partly modified. The comments reflected the concerns of an academic society in search of relevance. But more skill and experience was required to help the process to converge fruitfully. Despite the preponderance of agreed remarks, this did not lead to any concrete proposals, even when consensus emerged through the process. An excellent experiment in that if "failed" in a way which showed the remedies required. SGSR, and its outgoing President Richard Ericson, should be congratulated on being the first international conference to undertake it.

Case 2 (Intergovernmental): At the second network management meeting of the UN Environment Programme’s information referral system, INFOTERRA (Moscow, October 1979), it was agreed on the evening before the opening session to implement a straightforward messaging system, but working in English, French, Spanish, and Russian. The chairman of the meeting Dr Ashok Khosla (Indian director of INFOTERRA) drew the attention of the delegates (120 from 100 countries) to the messaging facility on every appropriate occasion. A total of 6 Bulletins were produced (in each language) carrying 98 messages in all. The English version was posted one wall after typing and before translation.

Comments: Participants were slow in responding to this unexpected facility. Messages were solicited personally from colleagues on the first day. The one-sheet explanation was only distributed on the second day. A typed first issue was quickly produced and displayed, but despite every assistance in translation, delays of 18 to 24 hours occurred before distribution (because photocopying was done on the other side of Moscow).
Case 4 (Academic workshop): At the first workshop on networks of the UN University's project on Goals, Processes and Indicators of Development (Brussels, May 1979), summaries of the discussions of the 13 participants were typed (and edited) via terminals into the EIES computer conferencing network based in North America. External messages received were incorporated with the summaries into a Bulletin distributed to the participants in Brussels.

Comments: This was just an experiment but it demonstrated the ease with which such a process could be organized and carried out. The summaries were only prepared infrequently but it was clearly possible to have them prepared (with any messages) by continuous input into terminals and much more frequent reproduction for the group. The final report was also drafted via the terminal for discussion.

Case 5 (NGO Workshop): Roots of the Future (to be written)

Case 6: Second International EcoCities Conference (Professional/grassroot mix - to be written)

Case 7: InterSectoral Dialogue, Rio de Janeiro, June 1992 (to be written)

Case 8: Global Forum/Earth Summit in Rio, June 1992 (to be written)

The alternative community gathering (Case 3) raises the important question of the preferred communication mode of conference participants. Conventional conferences are primarily aural events, although there is occasionally "audio-visual" assistance for the communication process. There is always the temptation to "read" papers to the audience. Not to go to the trouble of preparing one is perhaps a guarantee of spontaneity. It certainly ensures that participants must "listen" to their totality if they are to "hear" the message, whereas documents may be quickly scanned to determine what is worth hearing. What happens to the productivity of a non-aural person in an aural conference process, or to that of an aural person confronted by documents? Do individuals switch between modes and when? When is which mode appropriate and what constraints does each impose or conceal? Is the real potential for non-linearity achieved in audio-visual settings, or is this argument used to disguise weaknesses? What are the inter-cultural implications? It is probable that a clearer perspective on these questions would show the valuable intermediary role of a participant messaging process.