IEEE-TAB Committee on Social Implications of Technology

New York, August 12, 1972

MINUTES

The Chairman, Dr. Wolff, called the meeting to order at 9:00 a.m. in the Commodore Hotel.

1.0   Attendance

Those present:

Edward A. Wolff, Chairman (TAB Vice-Chairman)

Anthony Robbi   Vice-Chairman

Peter D. Edmonds, Secretary, TAB Staff

Walter R. Beam, representing IEEE Educational Activities Board (EAB)

Joseph E. Casey, EAB Staff

Harold Chestnut, IEEE Vice-President for Regional Activities and
           Chairman, Regional Activities Board (RAB)

W. Eugene Cory, representing RAB, and Director, IEEE Region 5
           (South-West).   Past Chairman, IEEE Committee on
           Applications of Electrotechnology to Social
           Problems.

Richard M. Emberson, TAB Secretary

Curt F. Fey, representing IEEE Computer Society, and Chairman,
           S-C Committee on Economic Decision Analysis

John E. Gaffney, Jr. representing Region 2 (Mid-Atlantic), and
           past Vice-Chairman, IEEE Committee on Applications
           of Electrotechnology to Social Problems.

William A. Higinbotham, Chairman, Working Group on Subject Areas

Frank Kotasek, Chairman, Working Group on Publicity and Participation

Michael Pessah, Chairman, Working Group on Newsletter

Gene Spanier, Vice-Chairman, Working Group on Procedures (vice V. Klig)

Bill Stillinger, representing IEEE Student Activities Committee
and Student Branch Chairman, New York University

Paul Stoller, Chairman, Working Group on Active IEEE Members

Stephen Ungar, Chairman, Working Group on Publications

Ted Werntz, Chairman, Working Group on Bibliographies

Those absent:

J. Malvern Benjamin, Chairman, Working Group on INTERCON '73

Arthur M. Killen, to represent TAB Division II

Victor Klig, Chairman, Working Group on Procedures

Homer M. Sarasohn, Chairman, Working Group on IEEE Activities

The Chairman announced that he had requested appointment of representatives from the
IEEE-TAB Environmental Quality Committee and the IEEE-TAB Technology Forecasting
and Assessment Committee.

The current committee roster with addresses and phone numbers is attached. (Attachment A).
A list of other interested persons is shown as Exhibit I.

2.0 Agenda

The agenda was approved with agreement to take up Newsletter and Publications
items consecutively.

3.0 Minutes of the organizational meeting of June 24, 1972

The minutes were approved as submitted. A copy is enclosed for those who had
not received the minutes previously.

4.0 Review of Enabling Documents

Mr. Sarasohn had submitted proposed revisions to the Purpose and Scope statements
prepared at the previous meeting. These were distributed with the agenda and are
shown as Appendix 1 of these minutes.

4.1 Purpose

Items 1, 4 and 5 were retained as written in the 6/24/72 statement.
Item 2 was revised as proposed.
Item 3 was revised as proposed with change of 'relative' to
'relevant'.
The proposed revision of item 5 was accepted as a contribution to
operating procedures of the committee. (N.B. This was not taken
up later in the meeting. An appropriate editorial change has
been made by the secretary to the first paragraph of Procedures,
see minute 5.1 and Attachment C)

The revised statement of Purpose is attached (Attachment B(a)).

4.2   Scope

Editorial revisions were made to items 1 and 9.
The revised statement of Scope is attached (Attachment B(b)).

ACTION Previous versions of Purpose and Scope statements should be marked as super-
(All)   seded by those provided as Attachment B. An additional copy of Attachment B
is provided for inclusion in a separate file of material for permanent reference.

TASK   Preparation of definitions of "Professionalism", "Professional Responsibility"
(Klig) and "Professional Responsibility---in Practice" was referred to the Working
Group on Procedures.

4.3   Name

No change.

5.0 Review of Working Group Reports and Plans

5.1   Procedures

The draft submitted by Mr. Klig was revised by Dr. Wolff for
conformity with IEEE Policies and Procedures and distributed
with the agenda. It is shown as Appendix 2 Item V (a); of these
minutes. The draft was discussed and further amended in committee;
various charges to the Working Group on Procedures were formulated:

TASK   (new 4.4): To propose statement of mechanisms for liaison with
(Klig)   IEEE members wishing to be active locally in places
other than the Northeast Corridor. RAB representative W.E. Cory
to be consulted. TAB-Environmental Quality Committee representative,
when appointed, will have same interest and need. Recommended
procedure is submission of a proposal by the local members to
the appropriate CSIT Working Group.

TASK   (4.2 with new 5.1, originally 8.1): To propose a new statement
(Klig)   recognizing the need for
continuity in the committee from year to year and the probability
of organizational changes in IEEE in the near future, if the
consititutional amendments are passed. One year terms were held
to be acceptable pending such reorganization.

TASK   (5.11, formerly 8.11): To review criteria for appointing a member
(Klig)   of student grade and recommend additions
                                    to the statement.

TASK   (6.4, formerly 9.5): To propose wording that specifically provides
(Klig)   for inclusion of miniority reports.

Section 5, Mailing Lists, of the draft Procedures was eliminated
because the matter is fully covered in IEEE Policy Statement #6.

In the opening discussion Mr. Wentz expressed concern at omission
from the draft of many topics, including relationships to TAB,
RAB and Publications Board, referreeing procedures, relation to
IEEE Policy Statement #27 (Presentation of Socio-Technical Material),
possible conflicts of interest, dual roles of individuals as advocates
and functionaries, lack of emphasis on the newsletter as the primary
communications medium for the committee, etc.

Mr. Higinbotham exhibited a copy of Procedures of the American
Physical Society's "Forum on Physics and Society", and offered
these as a model.

Adoption of the Procedures as amended was moved by Spanier and
seconded by Ungar. On a voice vote all but one were affirmative;
Werntz was opposed, due to the omissions listed above. The Procedures
were adopted as amended; future changes will be processed as
Amendments. The revised Procedure statement is attached (Attachment C).

Mr. Werntz then expressed particular concern for the avoidance
of dominance of committee activities by factions; for open meetings
and open access to publications. Addition of the work 'openly'
to Procedures statement 7.1 (formerly 6.1) was moved by Fey,
seconded by Werntz and unanimously approved.

5.2   Newsletter

Mr. Pessah's report is shown as Appendix 2 Item V(b), to these
minutes. After discussion, the following conclusions were
reached:

- Bimonthly publication is necessary to maintain any semblance of
  momentum.

ACTION
(Pessah)

- Distribution will be made to signers of the petition to form an
  IEEE Group, the mailing list for 'Electrical Engineering' (sample
  copy enclosed with these minutes), respondants to W. E. Cory's
  letter in Spectrum (   ) and to heads of EE Departments at
  universities (newsletter should bear request: "Please post after
  reading").

ACTION
(All)

- DEADLINE for receipt of items by Mr. Pessah for the first issue
  is SEPTEMBER 15, 1972.

- Mr. Pessah will coordinate with Mrs. Marian Herrick, TAB office,
  for production scheduling.

ACTION
(Edmonds)

- The secretary will send Mr. Pessah copies of the list of Technical
  Profile Categories for information:

ACTION
(Werntz)

- Mr. Werntz will draft a set of quesitons for inclusion in a
  questionnaire to be distributed by the TAB Membership Services
  Committee to all members of IEEE Groups and Societies and submit

to its chairman, Mr. Cary Spitzer, Mail Stop 159,
                Nasa Langley Research Center
                Hampton, Va. 23365
    Mr. Pessah was authorized to proceed according to these plans.

5.3   Publications

Dr. Ungar's report is shown as Appendix 2, Item V(g). Priority
would be given to contacts with and material for 'Spectrum'. The
plan for a special issue of 'Proceedings' was accorded lower priority.

Other model publications were named:

IEEE Press: "Clearing the Air", 1971 acclaimed by Mr. Werntz as the
               archtype for a series.

G-AES Publication: "The Federal Airways System," 1970

IEEE Soundings: "The Environment, Its Engineering Challenges",
               edited by Mr. Beam

American Chemical Society: "Chemical Basis for Action," 1969

AAAS: 'Science for Society' bibliographies, 2 volumes.

Other publications were sought:

TAB: Positions papers on socio-technical topics, e.g., 'Man in
       the Radiation Environment' proposed by Director Young.

CSIT: Soft cover booklet describing activities of this committee.

The report and plans of the Working Group on Publications were approved.

5.4   INTERCON '73

Mr. Benjamin's report is shown as Appendix 2, Item V(c).
Mr. Werntz commented as a contributor to the Working Group. Among
the proposed sessions: (A) The Ethical Relationship between the
Engineer and his Employer, (B) The Engineer and War Technology, (C)
The Effects of Information Technology on the Democratic Process,
Mr. Werntz accorded priority to (B) with specific reference to the
war in Vietnam in its current and foreseeable phase of diminishing
involvement of ground forces and continuing involvement of air forces
utilizing remote sensing and control technology. He proposed a
session comprising papers by proponents of widely differing view-
points; balance of views would be achieved by considering the session
as a whole, but was not expected within individual papers. Its purpose
would be to expose to view the consequences of substantial activity
in development of electrotechnology for warfare over many years. Since
the development had occurred, it was pertinent to inquire what happened
when the devices were used.

Dr. Chestnut advised against the choice of (B) as the first
and highly visible activity of the committee at INTERCON. He felt th⌐
the issue is divisive, instead of unifying, and that the anticipated
audience would not be rational on this subject. Dr. Wolff noted past
and present experiments with controversial subjects in the smaller
subset of IEEE members comprising the Washington Section. He also
expressed concern for constructiveness in the session proposals.
Dr. Emberson mentioned the possibility of breaking out a new area
of presently classified technology, such as warfare electronics.
Mr. Cory suggested emphasis on the social benefits anticipated from
transfer of war technology to the civil sphere. Dr. Gaffney supported
Mr. Werntz' proposal and Dr. Ungar said that ethical and moral issues
should not be avoided. The secretary requested a definition of con-
structiveness, and asked a) if the same definition was to be applied
to socio-technical sessions as to technical sessions and b) if so,
whether the stimulation of members of the audience with new information,
causing them to pursue independent investigations subsequently to
satisfy their particular needs, was not the test of constructiveness
applied to technical sessions. Mr. Werntz' proposal appeared to
satisfy this test. Mr. Higinbotham supported sessions A) and C), and
B) if the panel were not strongly polarized.

ACTION
(Werntz)

Mr. Werntz was requested to provide the committee with all
available details of proposed sessions A), B) and C) including
names of those tentatively invited to present papers and their
anticipated titles. Information to be mailed to CSIT members

ACTION
(All)

within one week with request for response to Dr. Wolff, ranking
the proposed sessions and speakers. Mr. Beam and Mr. Cory
should be consulted specifically on INTERCON programming since
each had served on previous INTERCON program committees.

5.5   **Active IEEE Members**

Mr. Stoller's report is shown as Appendix 2, Item V(e).
A special mailing of a questionnaire to the "Electrical Engineering'

ACTION
(Stoller)

list was approved. Mr. Stoller was charged to draft the questionnaire
and submit it to the committee for review. Mr. Robbi will assist.

The report and plans of the Working Group on Active IEEE Members
was approved. Subsequently this Working Group was advised to merge
with the Working Group on IEEE Activities (see minute 5.6)

5.6   **Publicity and Participation**

Mr. Kotasek's report is shown as Appendix 2, Item V (f).
The report and plans were approved with the following revisions:

3) Contribute to mailing list. (Maintaining the list is a function
   of the IEEE-TAB office).

7) and 8) Supply material for news releases (Distribution is also
          a function of the IEEE-TAB office).

11) Recommend formation of new Working Group (coordination is a
    function of the full committee).

5.7 **Current IEEE Activities**

ACTION
(Sarasohn)

Mr. Sarasohn's report is shown as Appendix 2, Item V (h).
The report and plans were approved as submitted. Close cooperation
or merger with the Working Group on Active IEEE Members was
recommended.

5.8 **Bibliography**

Mr. Werntz' report is shown as Appendix 2, Item V(i).
Discussion brought out the intention to include non-technical
sources of articles, provided they were submitted or reviewed
by an engineer who would vouch for their usefullness.

The report and plan were then approved.

5.9 **Subject Areas**

ACTION
(Fey)

Mr. Higinbotham's report is shown as Appendix 2, Item V (j).
Dr. Fey offered additional suggestions and will confirm by mail.
Mr. Higinbotham requested an expression of priorities and received
faint indications that topics on which there was already con-
siderable awareness of social implications would not require so
much attention as those for which sensitizing had not yet been so
effective.

The report and plans for expansion of subject descriptions were
approved.

6.0 **Old Business**

None.

7.0 **New Business**

7.1 **Engineering Schools' Curricula Survey**

Mr. Stoller reported that Dr. John Lewis, President, IEEE
Control Systems Society, was interested in conducting the survey
of engineering schools' curricula on social aspects of electro-
technology, a topic for which no Working Group was formed at
the last meeting.

A Motion to establish a Working Group on Engineering Schools'
Curricula was made by Werntz, seconded by Pessah and unanimously
approved.

The Chairman appointed Dr. Lewis as Chairman of the Working
Group and Mr. Stillinger as Vice-Chairman.

7.2 **Constitutional Amendments**

Vice-Chairman Robbi moved, seconded by Pessah,
THAT a letter be written to the editor of Spectrum

indicating support of the IEEE Constitutional Amendments
by the Committee on Social Implications of Technology.

Unanimously approved.

ACTION
(Robbi)

The Chairman assigned to Mr. Robbi the task of drafting the
letter and distributing copies to all committee members.

(Editorial Note: The text of the letter is attached- Attachment D.
It was reviewed by Chairman Wolff and two other
CSIT members.)

(N.B. It may be noted that the IEEE Power Engineering Society's
Governing Board has formally voted to oppose the Constitutional
Amendments and plans an article in its September newsletter on
the subject).

8.0 Next Meeting

The next meeting will be held at 9:00 a.m. on November 11, 1972 in the vicinity
of Grand Central Station, New York.

ACTION
(All)

-DEADLINE for submission of reports of all Working Groups to the TAB
office is October 28, 1972. Distribution of materials at the meeting is
firmly discouraged. Attendance at the meeting is limited to those
receiving the agenda or their single substitutes, who shall be informed
members of the respective Working Group.

+ Appendix 1(a), (b) Sarasohn's revisions of Purpose and Scope Statements
+ Appendix 2, V (a) ---(j): WG Reports.

Attachment A		Roster
"	B(a), (b)	Revised Purpose and Scope statement
"	C	Revised Procedures statements
"	D	CSIT letter to Spectrum

Exhibit I

List of interested persons and potential
members of W.G.'s provided by members of CSIT.

Exhibit II

Program of International Conference on
Computer Communications

Distribution: CSIT roster (encl: 'EE')   Peter D. Edmonds, Staff Secretary
IEEE Executive Committee
Staff Directors

Issued: August 28, 1972

IEEE Adhoc Committee on Social Implications of Technology
Organizational Meeting   June 24, 1972

(a) Purpose

1. ~~Develop means to~~ Encourage and support professionalism and social responsibility in the practice of engineering.

2. Promote sensitivity to and understanding of the ~~impact of~~ *INTERACTION BETWEEN* technology *AND* ~~on~~ society.

3. *FOSTER STUDY, DISCUSSION AND APPROPRIATE ACTION INVOLVING* ~~Promote an interaction among~~ IEEE members and others ~~on the~~ *RELATIVE TO THE* ~~impact of~~ technology/~~on~~ society *INTERFACE.*

4. *DEVELOP* ~~Promote the conception of~~ means and ~~implement~~ programs for predicting and evaluating the impact of technology on society.

5. *IMPLEMENT PROPER AND NECESSARY PROGRAMS TO CARRY OUT THE PURPOSES* ~~Take appropriate action to implement program.~~ *OF THIS COMMITTEE. THIS COMMITTEE WILL FUNCTION AS AN OPEN FORUM FOR THE INTERCHANGE OF IDEAS RELATED TO THE TECHNOLOGY/SOCIETY INTERFACE. NEITHER THE COMMITTEE NOR ANY COMMITTEE MEMBER WILL PURPORT TO BE AN "IEEE SPOKESMAN" ON ANY ISSUE UNLESS EXPRESSLY AUTHORIZED BY THE IEEE BOARD OF DIRECTORS.*

NOTE: "PROFESSIONALISM" AND "PROFESSIONAL RESPONSIBILITY" MUST BE SPECIFICALLY DEFINED

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Ad Hoc Committee on Social Implications of Technology
Organizational Meeting   June 24, 1972

(b)   Scope

The scope includes:

1. Effects of present and probably new technology on society.

2. New technology needed to solve society problems.

3. Attitudes of society towards engineering.

4. Programs to explain technology to society.

5. Communication among engineers and between engineers
    and society on needs and concerns of society and capability
    of technology.

6. Impact of society on technology.

7. Professional and social responsibility in the practice
    of engineering.

8. Content and levels of existing educational programs and
    relevent new programs.

9. Awareness of other activities directed at the technology/
    society interface. action

10. Involvement of IEEE members in the above.

NOTE: "PROFESSIONAL ..... RESPONSIBILITY IN PRACTICE"
      MUST BE CAREFULLY DEFINED SO AS TO PUT
      RATIONAL LIMITS TO THIS SCOPE. FOR
      EXAMPLE, THIS COMMITTEE NEED NOT BE
      INVOLVED IN PROFESSIONAL ENGINEERING
      REGISTRATION.

IEEE COMMITTEE ON SOCIAL IMPLICATIONS OF TECHNOLOGY

PROCEDURES

1. NAME

This committee shall be known as the IEEE Committee on Social Implications of Technology (CSIT) [T.B Ad Hoc]

2. PURPOSES

2.1 To develop means to encourage and support professionalism and social responsibility in the practice of engineering.

2.2. To promote sensitivity to and understanding of the impact of technology on society.

2.3 To promote an interaction among IEEE members and others, on the impact of technology on society.

2.4 To promote the conception of means, and to implement programs for predicting and evaluating the impact of technology on society.

2.5 To take appropriate action to implement programs in consonance with the IEEE Constitution, Bylaws and Policies.

3. SCOPE

3.1 The scope of this committee shall be relevant to the purposes previously outlined and shall include such areas as:

3.1.1. Effects of present and probable new technology on society.

3.1.2. New technology needed to solve society problems.

3.1.3. Attitudes of society towards engineering.

3.1.4. Impact of society on technology.

3.1.5. Professional and social responsibility in the practice of engineering.

3.1.6. Content and levels of existing educational programs.

3.1.7. Activities of others directed at the technology/society interface.

3.2 The scope of this committee shall include such activity areas as

3.2.1. Programs to explain technology to society.

3.2.2. Communication among engineers, and between engineers and society on needs and concerns of society and on capability and responsibility of technology.

3.2.3   Involvement of IEEE members in the purposes, scope, and
         functions of the committee

4. MEMBERSHIP

4.1   The membership of CSIT shall consist only of members of IEEE ~~and
       its affiliates~~ , of any grade, professing an interest to participate
       in the purposes, scope, and functions of this committee.

4.2   CSIT members and officers shall function as interested IEEE members,
       and shall not be considered as representatives of any body within
       or outside IEEE, *except these specifically chosen as liaison members.*

4.3   A member shall be entitled to participate in any subcommittee of
       CSIT (except the coordinating committee), ~~or in any local or regional
       body, or in any body sponsored in conjunction with any Group estab-
       lished to further the purposes and functions of CSIT.~~ Any member
       shall be eligible to serve on the coordinating committee, subject to
       the procedures described in sections 8 and 9.

4.4   Those members of IEEE ~~and its affiliates~~ indicating interest in
       membership in CSIT shall be entitled to receive a newsletter con-
       taining information regarding the purposes and functions of CSIT,
       events related to these matters, notices of available CSIT publica-
       tions, and meeting notices.

5. MAILING LISTS

IEEE General Manager

5.1   The ~~CSIT~~ shall be the custodian of any mailing lists developed in
       conjunction with the purposes and functions of this committee.

~~5.2   A copy of any composite mailing list developed by CSIT shall be
       made available to the secretary of IEEE TAB.~~

~~5.3   Any member of IEEE or its affiliates, of any grade, may qualify for
       any special mailing list assembled by any group within CSIT.~~

5.4   Registration lists derived from any type of activity sponsored or
       cosponsored by any group within CSIT shall be forthwith communicated
       to the ~~coordinating committee~~. *TAB Secretary* Such lists shall differentiate IEEE
       members from nonmembers for mailing purposes.

6. PUBLICATIONS

6.1   Articles related to Social Implications of Technology shall be
       solicited.

6.2   Articles and proposals (except notices and the newsletter) evolving
       from specific activities and studies undertaken or sponsored by this
       committee, and reflecting the views of or bearing the name of this
       committee or any of its subcommittees, shall be subject to approval
       by the Coordinating Committee prior to submission to an appropriate
       journal. Such articles and proposals shall be distributed to each
       member of the coordinating committee at least two weeks prior to a
       committee meeting or at least thirty days prior to a mail ballot of

the coordinating committee.

6.3 A newsletter shall be published at intervals designated by the coordinating committee or a duly designated subcommittee.

7. FINANCES

7.1 A CSIT account shall be established at IEEE headquarters with disbursements being made as authorized by the chairman ~~or vice-chairman~~ of the coordinating committee, or as voted by the coordinating committee, to pay for the Newsletter or similar expenses.

7.2 Funds from external granting agencies may be solicited for special projects, as authorized by the coordinating committee. Such funds shall be disbursed as provided in Section 7.1.

7.3 The ~~chairman or vice-chairman~~ *TAB Secretary* of the coordinating ~~committee~~, shall, at intervals designated by the coordinating committee, issue a statement of disbursement.

8. COORDINATING COMMITTEE

8.1 The CSIT coordinating committee shall consist of the chairmen of the CSIT subcommittees designated in Section 9 *and liason members from other IEEE entities.*

8.2 In the absence, incapacitation, or resignation of a subcommittee chairman, the subcommittee vice chairman shall sit on the coordinating committee. A subcommittee vice-chairman shall be designated by the subcommittee chairman, or be appointed under operating rules adopted by the subcommittee, *subject to approval of the Coordinating Committee Chairman.*

8.3 No member of the coordinating committee shall have more than one vote.

8.4 The *TAB Chairmen* coordinating committee shall designate a chairman and vice-chairman, ~~whose functions~~ shall include disbursement authorization ~~as per section 7, liason with IEEE, and~~ *with* such powers as may be delegated to them by the coordinating committee, *and the TAB Chairman.*

8.5 The chairman shall preside at coordinating committee meetings. The vice-chairman shall assume the duties of the chairman when the chairman is absent or incapacitated.

8.6 The chairman ~~or vice-chairman, or a person designated by them or the coordinating committee~~ shall, in cooperation with the IEEE staff, prepare and distribute meeting announcements, subcommittee reports, and meeting minutes.

8.7 Reports or budgets submitted to IEEE shall be subject to coordinating committee review.

8.8 Decisions of the coordinating committee shall be by majority vote, and only if a quorum has been established. A quorum shall consist of ~~representatives of over one-half of the subcommittees designated in section 9, subject to the provisions of sections 8.1 and 8.2~~ *a majority of the membership.*

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8.9 The term of office of each member of the coordinating committee shall expire after one year.

8.10 Consistent with the goal of maximum IEEE member involvement, no member of the coordinating committee may be reappointed or reelected to the coordinating committee for a period of one year after the expiration of said member's term of office.

Will destroy the committee

8.11 Members of the coordinating committee shall be members of IEEE or ~~its affiliates~~, of any grade. At least one member of the coordinating committee shall be of student grade.

8.12 Coordinating committee meetings may be arranged at the discretion of the chairman, or upon the request of four committee members. A mail ballot shall be distributed at the discretion of the chairman or, upon request of four committee members.

9. SUBCOMMITTEES

9.1 The subcommittees shall initially include the ten "Working Groups" listed on page six of the minutes of the June 24, 1972 CSIT meeting. The subcommittee chairmen therein listed shall function as the *members of* coordinating committee. ~~The chairman of that meeting and the vice-chairman then nominated, shall function as chairman and vice-chairman of the coordinating committee with full voting rights.~~

To be consistent with 8.4 as changed

9.2 New subcommittees and interim chairmen may be established by majority vote of the entire coordinating committee.

9.3 A model set of subcommittee operating rules shall be developed by the procedures subcommittee subject to approval by the coordinating committee. These rules may be adopted by any subcommittee. Any subcommittee may develop its own organizational structure and rules *(consistent with these rules,)* subject to approval by a majority of the entire coordinating committee.

9.4 Each subcommittee shall submit its operating rules to the coordinating committee for approval within four months of the onset of subcommittee operation.

9.5 Each subcommittee shall report fully on all its activities at the meetings of the coordinating committee. If a subcommittee representative is absent, a written or oral report from said subcommittee must be presented at the next coordinating committee meeting or upon request of the coordinating committee chairman.

9.6 A subcommittee can be dissolved by majority vote of the entire coordinating committee.

9.7 Subcommittees may be of a topical or activity orientation, or may be local, regional or group oriented, pursuant to the scope of CSIT.

10. AMENDMENTS

10.1 Amendments to these procedures shall be made by a majority of the entire coordinating committee. Thirty days shall be allowed after the distribution of the proposed amendment to to the coordinating committee members, for the responses to be made. Responses may be made at a meeting of the coordinating committee or by mail. Any committee member can propose an amendment to these procedures.

10.2 These procedures and subsequent amendments shall take effect thirty days after being sent to the IEEE Technical Activities Secretary. If disapproved by the TAB within that period, a meeting to resolve differences shall be held forthwith between representatives of TAB and CSIT. These procedures and subsequent amendments, or modifications jointly agreed to by the CSIT and TAB representatives, shall take effect one week after said meeting, without further ratification.

[handwritten note:] In Conflict with 10.1

[handwritten note:] TAB procedures

Inappropriate to tell TAB Chairman how to operate.

Only IEEE Executive Committee does that.

MONTEFIORE HOSPITAL AND MEDICAL CENTER

111 EAST 210TH STREET, BRONX NEW YORK 10467

Telephone:
Area Code 212

July 30, 1972

AdHoc Committee on Social
Implications of Technology

Gentlemen:

I envision our newsletter as the basic communications link
between the AdHoc Committee and any member of the IEEE interested
in our goals and in the steps we are taking to implement them. By
acting as a useful conduit of information in both directions (our
input and their feedback) I think we can begin to affect the con-
sciousness of the membership and they, on their part, may more clearly
communicate their spontaneous reactions to our basic orientation.

To this end I visualize, quite preliminarily, the following format:

a) A bi-monthly publishing schedule, until material and in-
terest dictate increasing the number of issues.

b) Along with a statement of the basic aims of our group,
every issue should contain a list of any actions or activities
planned or taken by the Committee as a whole, or any sub-
group; this would include organization of seminars, discussions,
study groups, invitation of guest speakers, publication of
special reviews or position papers, as well as notation of
articles by Committee members appearing in other publications.

c) One article each issue devoted to a particular subgroup's
topic, noting progress made, problems identified and tentative
goals.

d) A section for readers' comments, suggestions and aids; this
might include articles written by other members of the IEEE

as well as any outside interested readers.

e) A discussion column, when publication becomes more frequent, where controversial ideas or subjects within the purview of the Committee could be aired for the benefit of all interested in the question.

f) A review of new technical books and papers dealing with the impact of technology on society.

g) Guest pieces written by members of the socially-oriented study committees of other technical societies, (ASCE, for example).

h) A call for new members, and a special section on student activities and participation.

i) A listing of any new movements within the government bearing on the social implications of American technology.

j) Finally, a concise summary of the minutes of any meetings held by the working sub-committees.

These are my first ideas about our newsletter, and of course the above list is incomplete. But since this must be a joint venture, I would value any additions, deletions, criticisms and suggestions highly, so let me hear from you. So far as resources go, I feel it is a little too early to judge what might be necessary to carry out all or part of the above, but this could be explored in the August 12 meeting.

See you then.

Sincerely,

Michael Pessah

Michael Pessah

P.S. Please change my mailing address for your records:

Michael Pessah
1420 Noble Avenue
Bronx, N.Y. 10472

*address change
noted + also
given to malumai
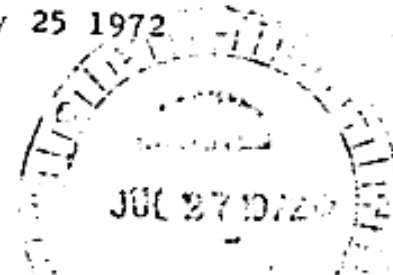for cooing + don 1/0/0*

BIONIC INSTRUMENTS, INC.

221 Rock Hill Road, Bala Cynwyd, Penna. 19004 • (215) TEnnyson 9-3260

July 25 1972

Dr. Edward A. Wolff
1021 Cresthaven
Silver Spring, MD

Dear Dr. Wolff

This is a brief report on activities so far toward the organizing of talks for the March, 1973, Intercon.

I have had a lengthy phone visit with Jack Raper of GE, the program director, and he assures me of his cooperation in placing as many papers as is practical within the format of the sessions as they are presently lined out. He indicated that for three reasons it would be quite difficult to arrange for the three special sessions that we nave requested (for that matter, it would be difficult to squeeze in even one!): 1) There is a severe shortage of session space due to cutbacks in programming; 2) The present format arrangement of sessions dictates that topics should be classified and subclassified by technical areas; 3) There is a desire on the part of the IEEE to make sessions as attractive as possible to employers in order to shake loose travel funds.

I pointed out that I would still like individual sessions to be considered, for the following reasons: 1) Two of the three desired session areas do not neatly fit the present technical topical classification (Sessions A and B); 2) An indication by IEEE of their concern for the social implications of engineering through instituting a few sessions in this area will probably attract a good number of young engineers who otherwise are somewhat "turned off" by the present somewhat unresponsive (to areas where sociologists, historians, and philosophers might teach younger engineers they have a social responsibility if they wish to claim it) programs of the IEEE; it may be more helpful, in the long run, to respond to that taught and felt need rather than be deterred from it by fear of alienating or losing the interest of a few employers; wise heads outside IEEE have said engineers are responsible, hopefully, other wise heads inside IEEE besides mine and yours will support us and them by tactfully beginning the shifting of priorities, classifications, and schedules; 3) If space is a problem, there may be some meeting space at the Colosseum not presently being considered for use because (as I gather from Mr. Raper) the Program Committee has considered it undesirable for one reason or another as meeting space, but which might be perfectly satisfactory for our purposes—in any event, I shall continue, gently, and, I hope, persuasively, to explore this possibility.

Mr. Raper ended by holding out the hope that perhaps some session or sessions may wind up not being organized at all for lack of sufficient papers; if this were the case, he said that there was the possibility that some session time might open up.

(over)

I've had one phone conversation with Dr. Emberson and have made one abortive effort to visit with him; I will continue that effort in order to keep in close touch with him.

So far, I am proceeding with the early organization of the paper by assuming that we will end by having three sessions. I am inviting people tentatively to participate by writing papers to be presented in these three areas; if it turns out that our plans for these sessions are frustrated, we can switch things around without doing damage, because I am not making firm promises. The sessions will be titled:

A) "The Ethical Relationship Between the Engineer and his Employer."

B) "The Engineer and War Technology."

C) "The Effects of Information Technology on the Democratic Process."

Invitations have been sent to thirteen persons so far, of whom about 1/3 are in industry--the others are either in the academic or social sphere. Incidentally, one of the three acceptances that we have received so far is from Mr. Ralph Smith of the Mitre Corporation, who agrees to speak on Topic C. Our chief efforts will be directed toward adding to our invitees from the business area.

I'm sorry I will not be able to make the next Committee meeting, as I shall be on vacation at that time--probably out of the country. I will be back in business again, however, at the end of August.

Best wishes,

George Bernard Midd6

For J. Malvern Benjamin, Jr.

JMB:gbr
Copies: R. M. Emberson
           Ted Werntz
           Stephen Unger
           Victor Klig

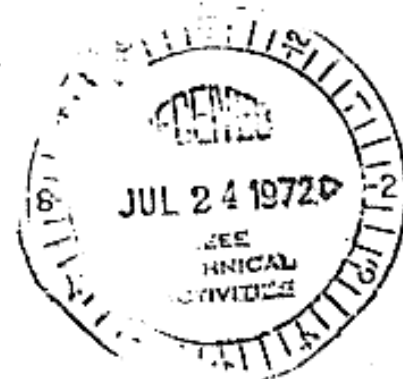P.S.: I'm sorry we were not able to connect last time I was in New York; I shall try again the next time.

Mal

IEEE Adhoc Committee on Social Implications of Technology

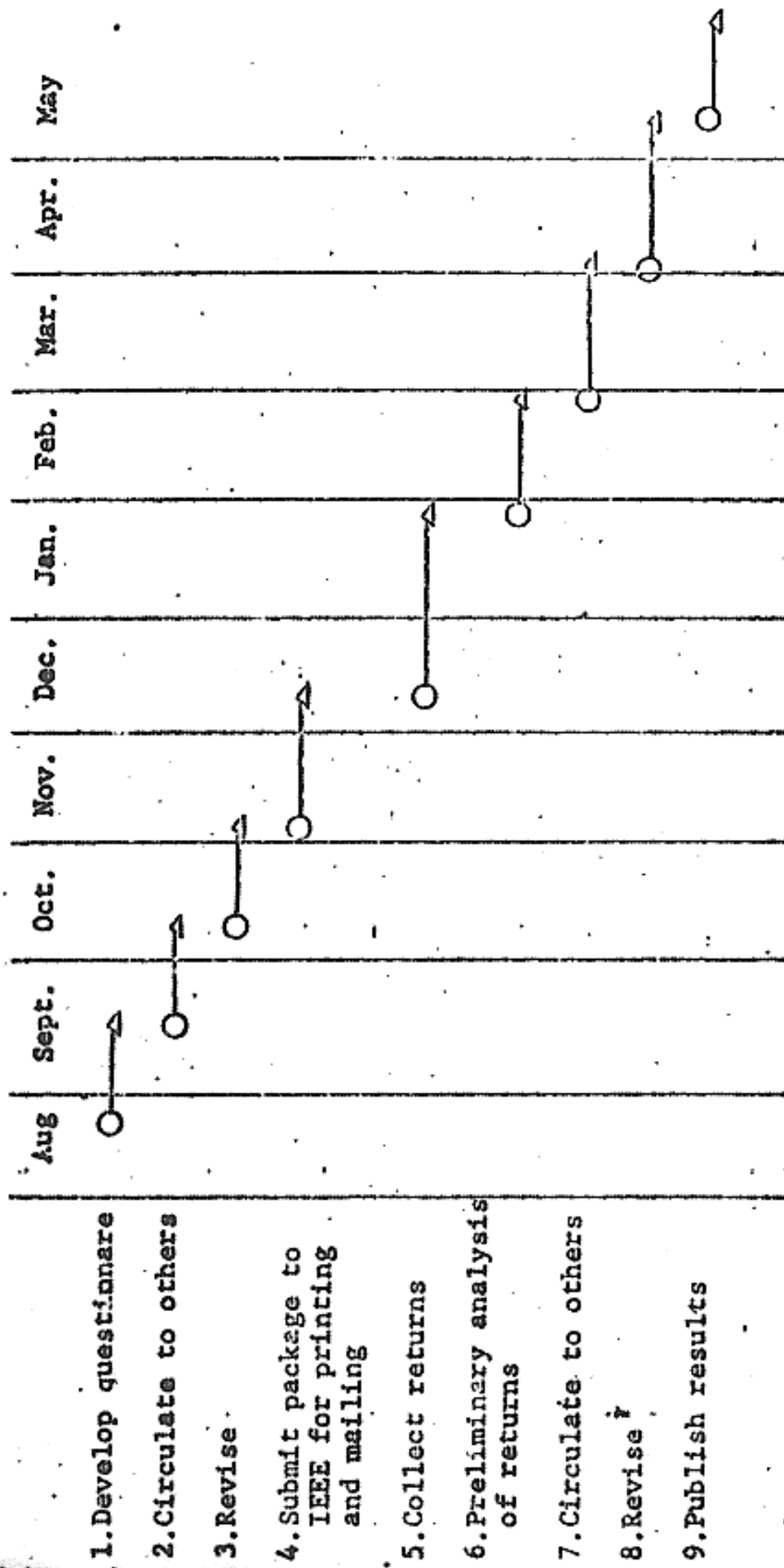Working Group I) Survey of IEEE Active Individuals

Chairman - P. Stoller

Vice Chairman -

Others Willing
to Assist-

First Year Activities

A) Develop questionare (see steps 1,2,3)

B) Mail a package (described below) to the mailing list (see Step 4)

of Electrical Engineering (app. 3000)

Items contained in package

1. Cover letter

2. Purpose of Committee

3. Titles of Workin Groups

4. Questionare

C) Compile data and develop preliminary results (see Step 5)

D) Assess completeness, possible follow-up mailing and/or phone

conversations to people responding to first questionare to

fill in the gaps. (see Step 6)

E) Circulate results to other Working Groups for comments (see Step

F) Revise Results if required (see Step 8)

G) Publish in the Committee Newsletter and have available for

circulation.

(OVER)

MILESTONE CHART OF FIRST YEAR ACTIVITIES   (1972 - 1973)

	Aug	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May

1. Develop questionare
2. Circulate to others
3. Revise
4. Submit package to IEEE for printing and mailing
5. Collect returns
6. Preliminary analysis of returns
7. Circulate to others
8. Revise
9. Publish results

RESOURCES REQUIRED

A) Mailing
$ 160

    Printing 3,000 each of 4 pages

    Mailing 3,000 pieces

B) Telephone
$ 50

C) Misc.
$ 30

$ 240.

Written and Submitted by

Paul Stoller

July 21, 1972

$60 telephone reimbursement

Mail 220 pieces

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IEEE Ad Hoc Committee on Social Implications of Technology

Working Group on Publicity and Participation

Chairman: F. Kotasek
Vice Chairman: Harvey Citrin
                131 Willoughby Ave.
                Brooklyn, N.Y.   11205
Members: A. Robbi, L. Tate, others to be solicited

First-year Goals

Broaden Participation by IEEE members.

First-year Activities

Publicize the aims and programs of the Committee to encourage participation.

Action Plan

1. Write monthly blurb in Spectrum (consult with editor Donald Christiansen). Initial blurb will:
   a) Describe the Committee, its purposes, and its present and future activities.
   b) Stress the urgent need for action in the area of social implications of technology.
   c) Encourage direct membership participation in Committee activities. Give names and addresses of Working Group chairmen.
   d) Invite all IEEE members to suggest subject areas and additional Committee activities, and to place their names on the mailing list for the Committee newsletter.

2. Write overview article for Spectrum (consult with editor Donald Christiansen).

3. ~~Maintain~~ *Contribute to* mailing list. — TAB office function

4. Mail questionnaire to mailing list inviting participation in working groups.

5. Mailing to 220 IEEE student chapters encouraging activities at student chapter level.

6. Mailing to 220 University EE Dept. chairmen.

MacDonald { 7. News release to trade press (avg. of once every 2 months).

   8. News release to section bulletins and group newsletters (avg. of once every 2 months).

9. Coordinate initial participation by new Committee members.

10. Coordinate IEEE student chapter activities.

11. ~~Coordinate~~ *Recommend* formation of new working groups (lower priority items listed under "First-year Activities," sec. 3d of June 24 minutes) in accordance with the interests of new Committee members.

12. Liaison with Newsletter Working Group regarding publicity activities.

13. Second mailing to 220 IEEE student chapters.

Schedule

Action Step	Completion Date	IEEE Resources Required
1.	monthly starting 9/1/72	---
2.	10/1/72	---
3.	continual	Computerization of mailing list
4.	first mailing 10/1/72	Mail 1000 pieces
5.	10/1/72	Mail 220 pieces
6.	10/1/72	Mail 220 pieces
7.	first release 10/1/72	via Educational Svcs. (J. Kinn)
8.	first release 10/1/72	via Membership Svcs. (C. Stewart)
9.	continual	$120 telephone reimbursement
10.	continual	$60 telephone reimbursement
11.	continual	$60 telephone reimbursement
12.	continual	---
13.	2/1/73	Mail 220 pieces

IEEE Ad Hoc Committee on Social Implications of Technology

Recommendations of Working Group on Publications

The following recommendations concern the publication of
material generated by the SIT Committee in existing IEEE organs.
It is assumed that the role of the Committee's own newsletter
will be dealt with in a separate report by the appropriate working
group.

Two IEEE journals have been selected for consideration: The
Spectrum and the Proceedings. The following two proposals should
be regarded, at least initially as alternatives.

1.   A Monthly Series in the Spectrum

The idea here is to have an arrangement whereby our committee
can obtain space in the Spectrum on a monthly basis for the
equivalent of one paper. (In some cases the space might be used
for several short papers or rebuttals of previously published
papers).

The mechanism might be as follows:

(a)   The SIT Committee nominates one of its members to
serve as SIT editor.

(b)   The nominee is then submitted for approval to the
editor and/or the editorial board of Spectrum
(whatever is the appropriate procedure for appointing
an associate editor).

(c)   Articles on subjects within the scope of the SIT
Committee are then solicited thru the pages of
Spectrum, the SIT Committee newsletter, the working
groups of the SIT Committee, the publications of
IEEE Groups and Societies, or other appropriate
channels.

(d)   Such articles are then processed by the SIT editor
in the usual manner, making use of knowledgeable
referees (perhaps 3 for each paper).

(e)   Since controversial viewpoints are to be expected,
the editor should strive to obtain, or even to
explicitly solicit high quality papers representing
a variety of approaches to the various problems.
Short rebuttals of particular arguments made in
earlier published papers should be particularly
encouraged.

2.   A Special Issue of the Proceedings

This proposal involves the production of a special issue of
the IEEE Proceedings by the SIT Committee. The mechanism would
parallel that for the first proposal with respect to the selection
of the editor and the procedure for soliciting and accepting papers.

3.   Discussion

Both proposals outlined here would seem to be efficient ways
of reaching large numbers of IEEE members, with the first having
a distinct advantage due to the larger circulation of the Spectrum.
A further advantage of the first proposal lies in the fact that the
distribution of articles in time may lead to a build-up of reader
interest and also facilitates a dialogue with the readers thru
letters and rebuttal articles. An advantage of the second approach
is that the resulting publication would be a compact resource
available for university courses or special seminars.

On the whole, it would appear that the first proposal is
preferable. It would incidentally be consonant with a general
trend in the pages of Spectrum to deal with many of the issues
within the SIT area.

Neither proposal should be considered as in any way being a
substitute for a newsletter and/or transactions of the SIT Committee.
Such publications are important for the exchange of special in-
formation and somewhat less developed ideas among those with a
particular interest in various topics within the scope of the
Committee.

Stephen H. Unger
7/5/72

Chairman: B. M. Sarasohn
Vice Chairman: open
Members: F. Kotasek; others to be solicited

First Year Goals

Document existing efforts (within IEEE) directed at
the technology/society interface, and establish
liaison with those involved.

First Year Activities

Survey and summarize existing IEEE activities (in this
technology/society interface area).

Action Plan

1. Obtain additional committee members from among IEEE members.
   For this purpose, among other resources, review CSRE peti-
   tion signers as possible members.

2. Select Working Group vice chairman.

3. By consultation with IEEE Headquarters, by letter and tele-
   phone contact with IEEE Activity chairmen, presidents and
   other officers, and by other means identify existing IEEE
   activities that are operating in or have an interest in the
   general area covered by this AdHoc Committee's scope.

4. Obtain from each such identified IEEE activity a descriptive
   statement of:

   (1) Activity mission, charter or field of interest

   (2) Specific activity related to the technology/society
        interface

   (3) Major achievements or programs in this activity prior
        to January 1, 1972

   (4) Principal plans and programs in this activity for
        1972 and the next two years

   (5) The name of the person charged with responsibility
        for the success of this activity

   (6) Agreement to establish and maintain effective liaison
        and communication between this activity and the AdHoc
        Committee

   A major consideration in the above is the determination
   of how the results and programs of the activity are
   communicated to the activity membership, and the degree
   of involvement and excitement generated among activity
   members.

   The foregoing information may be obtained by correspon-
   dence, telephone or by personal interview.

5. Summarize the findings in 4. above in a written report to be
   submitted to the AdHoc Committee chairman.

6. Maintain contact with the designated activity liaison
   people to assure effective two-way channels of communica-
   tions that will serve the mutual purposes of the groups in-
   volved.

At this time it appears that no financial or administrative re-
sources will be required in the first year that cannot be borne
personally by the working group members. IEEE Headquarters may
be called upon for typing, reproduction and mailing services
when step 5. above is reached. However, if step 4. above re-
quires protracted long distance telephone calls - the number or
cost of which cannot be estimated at this initial stage - a re-
quest will be made for reimbursement. No plan is made at this
time for travel for which reimbursement will be required.

Schedule

Action Plan Step	Completion Date
1.	September 15, 1972
2.	September 30, 1972
3.	November 30, 1972
4.	February 28, 1973
5.	April 30, 1973
6.	transfer working group function to appropriate action groups and terminate this working group by June 15, 1973

d. Copies of the relevant sections of their Standard
(OVER)

IEEE Ad Hoc Committee on the Social Implications of Technology

Working Group on Bibliography and Reading List

Chairman: Ted Werntz
Vice Chairman: open
Members: open

JUL 24 1972
IEEE
TECHNICAL
ACTIVITIES

First Year Goals: To publish a bibliography ~~and reading list~~ of published material on the Social Implications of Technology.

Action Program:

Phase I.   Solicit nominations for reading list in the following manner:

1.   Contact other technical societies to obtain a copy of any similar reading lists that they may have available.

2.   Contact EE Department Chairmen to obtain:

a.   Titles of courses offered that treat the Social Implications of Technology.

b.   Copy of course syllabus and reading list for these courses.

c.   List of articles published by members of EE faculty relevant to a discussion on the social implications of technology.

d.   Any other titles they or members of their faculty may want to nominate for inclusion on our reading list.

3.   Contact the public relations officer of the largest employers of electrical engineers to obtain the following:

a. A list of the publications by members of their engineering staff, whcih treat on aspects of the Social Implications of Technology.

b.   Copies of addresses given by members of Corporate Management that treat this subject.

c. Copies of internal publications on this subject.

d.   Copies of the relevant sections of their Standard

(OVER)

IEEE Ad Hoc Committee on Social Implications of
Technology Working Group on Study Subjects

At the June 24th meeting a shopping list was hastily put together of topics which might be considered for some sort of action--article, symposia, study groups, general discussion. I was assigned the task of organizing and streamlining this list. The task was entitled "develop matrix." A matrix is presented in the letter from Professor Welch which was distributed with the minutes of that meeting as attachment D. It lists IEEE technical areas vs. social problems such as over-population and societal conflict. I find his letter stimulating but not helpful to my view of what our Ad Hoc Committee and its potential members have in mind.

Later in June I canvassed this committee for topics. I have assumed the following groundrules:

1. The intent of CSIT is to provide a forum within IEEE for discussion of social implications of technology in a broad sense. It should encourage informal discussion, letters to the editor and arrange for stimulating and provocative papers at meetings and articles in Spectrum.

2. My assignment is to suggest some specific subjects in which a substantial number of IEEE members should be interested enough to conduct studies to develop improved understanding and to produce reports.

3. The list of subjects should be short enough so that the available (and unknown) effort is not spread too thin.

4. In selecting subjects they should be appropriate for EE's and they should not duplicate studies already adequately handled by other groups or agencies.

A list of most of the topics which have been suggested is given in Appendix A. From these I suggest the following for consideration for the first year.

Topics Proposed for Study

1. Social Responsibility of the Engineer.
2. Electronics and Democracy.
3. Electronics in Modern Warfare.
4. The Federal Role in Electrical and Electronics R&D.
5. Forecasting the Impact of Electrical and Electronic Developments.

Explanation

Here I wish to explain what I mean by these titles and why I have chosen them.

1. Everyone agrees that an engineer or a lawyer or an ordinary citizen has a social responsibility. However, there are a great many different views as to what is or should be involved. B. M. Oliver (Spectrum, Jan. 1972, p. 52) takes a very long range and controversial point of view. Consider Ellsberg. I would guess this committee could argue the rest of its life. Good. I don't expect external results but discussion of social responsibility is good for everyone.

2. This may be a misleading title. What I have in mind is the invasion of privacy by data banks, charge cards, electronic surveillance, etc. This becomes ever a greater threat to privacy and freedom. EE's build the threat and have a prime responsibility to face up to it.

3. Topics in the appendix are more specifically oriented toward the employment of electronics in Vietnam. Electronics has been used in Vietnam and in WWII. Indeed it is an essential part of modern warfare. I believe that the place to stop the war in Vietnam is at the ballot box. I believe that EE's have a strong responsibility to explain to the public what their role is in restricted wars (such as Vietnam), in strategic wars (missiles, radar, sonar), and to stir up their own consciences with regard to defense R&D. This does not say whether I would take or refuse a defense job.

4. Federal support of engineering R&D has been reduced in the last few years resulting in hardship for many in the field. Engineers should try to develop a rational policy for Federal support of engineering, as physicists did with the Bromley Report.

-2-

5. I recognize that there is a TAB Committee on Forecasting and Assessment. There are 50,000 other outfits, including the Club of Rome. But this is a game that anyone can play and that professionals of all stripes certainly should.

Epilogue

Perhaps I should say why I have not suggested some topics which were often mentioned:

Environment is popular today and EE's have roles. But there is the U.S. Environmental Protection Agency, etc., etc. Many IEEE members are involved. Enough.

Spectrum frequently has articles on transportation. Traffic control has been solved--except for money.

Urban problems need an interdisciplinary attack. Rand hasn't done much for New York City. Neither will a volunteer committee of IEEE.

Few members of IEEE have studied the Nuremberg Trials. Foreign policy is a responsibility of every citizen. IEEE, AMA, and the AFL have no special expertise in foreign policy. Engineers, scientists, and GI's, among others, have the obligation to tell what war involves.

Perhaps there should be a discussion of professionalism, i.e., conditions of employment, job security, wages. IEEE is engaged in some aspects of this and there are engineering societies which have this sort of thing as a goal. Still, if people want to discuss, I'm game.

I think these or similar topics will appeal to many members as being "relevant" subjects which have not had enough discussion in the past.

Appendix A

Topics Suggested:

Edward A. Wolff:

1. Environment and Resources
2. Transportation
3. Urban Problems
4. Product Engineering

Stephen Unger, Victor Klig, Frank Kotasek:

Environment
Urban Technology
Social Responsibility in Engineering
Information Transmission and Processing
National Defense
Education: Courses in Technology & Science for EE's
Health Systems: Ethical problemsof new Technology

Stephen Unger:

Technology to facilitate citizen's participation
in government.

Frank Kotasek:

Role of Technology in the Indo-China War
Military funding, conversion to peacetime economy
Effects of technology on environment
Data banks and privacy
Individual responsibility for consequences of his work

Ed Trunk:

Technology as handmaiden to the military
Environment

Paul Stoller:

The engineer and the war in Vietnam
Automated air war
Nuremberg precedents and Vietnam

Ted Werntz:

The Nuremberg trials and German engineers
Electrotechnology in the Vietnam War

Petitioners for CSIT (letter in Spectrum, May 1972, p. 11)

1. Application of electronics to alleviation of pollution
2. Effects of energy consumption on the biosphere
3. Data banks, electronic surveillance and privacy
4. Urban problems and transportation.
5. The role of government in technological R&D
6. "Ethics, the professional status of engineers and the engineer's application of his technical knowledge to community affairs" (did I say that?).

Other IEEE Activities

Socio-economic employment issues. Dr. Irwin Gray

TAB Committee on Environmental Quality
    "   "   " Transportation
    "   "   " Technology Forecasting and Assessment

IEEE Ad Hoc Committee on Applications of Electrotechnology to Social Problems (Spectrum, Feb. 1972):

Public Systems Analysis - with public agencies
Urban Modelling
Transportation and Traffic Studies
Environmental Systems Studies
Electric Power
Communications
Medicine

(This committee specifically avoided national defense.)

Not suggested--yet

Women and minorities in engineering

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ROSTER

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IEEE AdHoc Committee on Social Implications of Technology
Organizational Meeting   August 12, 1972

(a)   Purpose

1. Develop means to encourage and support professionalism and
   social responsibility in the practice of engineering.

2. Promote sensitivity to and understanding of the interaction
   between technology and society.

3. Foster study, discussion and appropriate action involving
   IEEE members and others relevant to the technology/society
   interface.

4. Promote the conception of means and implement programs for
   predicting and evaluating the impact of technology on
   society.

5. Take appropriate action to implement programs.

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IEEE AdHoc Committee on Social Implications of Technology
Organizational Meeting   August 12, 1972

(b) Scope

The scope includes:

1. Effects of present and probable new technology on society.

2. New technology needed to solve society problems.

3. Attitudes of society towards engineering.

4. Programs to explain technology to society.

5. Communication among engineers and between engineers
    and society on needs and concerns of society and
    capability of technology.

6. Impact of society on technology.

7. Professional and social responsibility in the practice
    of engineering.

8. Content and levels of existing educational programs
    and relevent new programs.

9. Awareness of other activities directed at the technology/
    society interaction.

10. Involvement of IEEE members in the above.

PROCEDURES

1. PREAMBLE

This committee shall be known as the IEEE Committee on Social
Implications of Technology (CSIT). It is an AdHoc TAB committee.
This committee will function as an open forum for the interchange
of ideas related to the technology/society interface. Neither the
committee nor any committee member will purport to be an "IEEE
Spokesman" on any issue unless expressly authorized by the IEEE
Board of Directors or the IEEE Executive Committee.

2. PURPOSES

2.1   To develop means to encourage and support professionalism and
social responsibility in the practice of engineering.

2.2   To promote sensitivity to and understanding of the impact of
technology on society.

2.3   To promote an interaction among IEEE members and others, on
the impact of technology on society.

2.4   To promote the conception of means, and to implement programs
for predicting and evaluating the impact of technology on
society.

2.5   To take appropriate action to implement programs, in consonance
with the IEEE Constitution, Bylaws and Policies.

3. SCOPE

3.1   The scope of this committee shall embrace the purposes
previously outlined and shall include such areas as:

3.1.1. Effects of present and probable new technology on
society.

3.1.2. New technology needed to solve society problems.

3.1.3. Attitudes of society towards engineering.

3.1.4. Impact of society on technology.

3.1.5. Professional and social responsibility in the practice
of engineering.

3.1.6. Content and levels of existing educational programs.

3.1.7. Activities of others directed at technology/society
interaction.

3.2   The scope of this committee shall include such activity areas
as:

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IEEE AdHoc Committee on Social Implications of Technology
Organizational Meeting   August 12, 1972

(b) Scope

The scope includes:

1. Effects of present and probable new technology on society.

2. New technology needed to solve society problems.

3. Attitudes of society towards engineering.

4. Programs to explain technology to society.

5. Communication among engineers and between engineers
and society on needs and concerns of society and
capability of technology.

6. Impact of society on technology.

7. Professional and social responsibility in the practice
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8. Content and levels of existing educational programs
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3.1.3. Attitudes of society towards engineering.

3.1.4. Impact of society on technology.

3.1.5. Professional and social responsibility in the practice of engineering.

3.1.6. Content and levels of existing educational programs.

3.1.7. Activities of others directed at technology/society interaction.

3.2   The scope of this committee shall include such activity areas as:

3.2.1. Programs to explain technology to society.

3.2.2. Communication among engineers, and between engineers
and society on needs and concerns of society and on
capability and responsibility of technology.

3.2.3. Involvement of IEEE members in the purposes, scope, and
functions of the committee.

4. MEMBERSHIP

4.1. The membership of CSIT shall consist of members of IEEE, of
any grade, professing an interest to participate in the
purposes, scope, and functions of this committee.

4.2.

4.3. A member shall be entitled to participate in any subcommittee
of CSIT (except the coordinating committee). Any member
shall be eligible to serve on the coordinating committee,
subject to the procedures described in Sections 5 and 6.

4.4.

5. COORDINATING COMMITTEE

5.1. The CSIT coordinating committee shall consist of the chairmen of
the CSIT subcommittees designated in Section 6 and liasion
members from other IEEE entities.

5.2. In the absence, incapacitation, or resignation of a subcommittee
chairman, the subcommittee vice-chairman shall sit on the
coordinating committee. A subcommittee vice-chairman shall
be designated by the subcommittee chairman, or be appointed
under operating rules adopted by the subcommittee, subject to
approval of the coordinating committee chairman.

5.3. No member of the coordinating committee shall have more than
one vote.

5.4. The TAB chairman shall designate a coordinating committee chair-
man and vice-chairman, with such powers as may be delegated
to them by the coordinating committee, and the TAB chairman.

5.5. The chairman shall preside at coordinating committee meeting.
The vice-chairman shall assume the duties of the chairman when
the chairman is absent or incapacitated.

5.6. The chairman shall appoint a Secretary-Treasurer.

5.7.   The chairman, through the Secretary-Treasurer and in co-operation with the IEEE staff, shall prepare and distribute meeting announcements, subcommittee reports, and meeting minutes.

5.8.   Reports or budgets submitted to IEEE shall be subject to coordinating committee review.

5.9.   Decisions of the coordinating committee shall be by majority vote, and only if a quorum has been established. A quorum shall consist of a majority of the voting membership.

5.10.   The term of office of each member of the coordinating committee shall expire after one year.

5.11.

5.12.   Members of the coordinating committee shall be members of IEEE of any grade. At least one member of the coordinating committee shall be of student grade.

5.13.   Coordinating committee meetings may be arranged at the discretion of the chairman, or upon the request of one-third of the committee members. A mail ballot shall be distributed at the descretion of the chairman or, upon request of one-third of the committee members.

5.14.   Coordinating committee shall be governed by Robert's Rules of Order (latest revision).

6. SUBCOMMITTEES

6.1.   Subcommittees may be established or dissolved and their chairmen chosen by majority vote of the coordinating committee. A subcommittee can be dissolved by majority vote of the entire coordinating committee.

6.2.   A model set of subcommittee operating rules shall be developed by the procedures subcommittee subject to approval by the coordinating committee. These rules may be adopted by any subcommittee. Any subcommittee may develop its own organizational structure and rules consistent with these votes, subject to approval by a majority of the coordinating committee.

6.3.   Each subcommittee shall submit its operating rules to the coordinating committee for approval within four months of its establishment.

6.4.   Each subcommittee shall report on all its activities 2 weeks prior to meetings of the cordinating committee. Reports shall be distributed with agenda for the meetings.

6.5.   Subcommittees may be of a topical or activity orientation, or may be local, regional or group oriented, pursuant to the scope of CSIT.

7. PUBLICATIONS

7.1. Articles related to Social Implications of Technology shall be solicited openly.

7.2. Manuscripts (except notices and the newsletter) evolving from specific activities and studies undertaken or sponsored by this committee, or bearing the name of this committee or any of its subcommittees, shall be subject to approval by the coordinating committee prior to submission to an appropriate journal. Such manuscripts shall be distributed to each member of the coordinating committee at least two weeks prior to a committee meeting or at least thirty days prior to a mail ballot of the coordinating committee.

7.3. A newsletter shall be published at intervals designated by the coordinating committee or a duly designated subcommittee.

7.4. Those members of IEEE indicating interest in membership in CSIT shall be entitled to receive a newsletter containing information regarding the purposes and functions of CSIT, events related to these matters, notices of available CSIT publications, and meeting notices.

8. FINANCES

8.1. A CSIT account shall be established at IEEE headquarters with disbursements being made as authorized by the chairman of the coordinating committee, or as voted by the coordinating committee, to pay for the newsletter or similar expenses. An account shall be established at IEEE headquarters and disbursements shall be authorized by the chairman or secretary treasurer.

8.2. The TAB Secretary shall, at intervals designated by the coordinating committee, issue a statement of disbursement.

9. AMENDMENTS

9.1. Amendments to these procedures shall be made by a two-thirds affirmative vote of the entire coordinating committee. Thirty days shall be allowed after the distribution of the proposed amendment to the coordinating committee members for the responses to be made. Responses may be made at a meeting of the coordinating committee or by mail. Any committee member can propose an amendment to these procedures.

9.2. These procedures and subsequent amendments shall take effect thirty days after being sent to the IEEE Technical Activities Secretary. If disapproved by the TAB chairman within that period, a meeting to resolve differences shall be requested.

August 15, 1972

Dear Sir:

The recently formed TAB Committee on the Social Implications of Technology has unanimously passed a resolution in support of the proposed IEEE Constitution change. The Committee's purpose is to bring attention to the interaction between technology and society. It, and many other existing IEEE activities, would obviously become more effective under the new charter. IEEE's historic role as a purely technical society is becoming more anachronistic every day. The needs of the engineer and society will both be better served by a professional, as well as technical, organization: one that can discuss "standards of qualification", "standards of conduct", and what is meant by "the public welfare". A new IEEE will be able to establish better lines of communication to the public and seek professional treatment for its members. The underlying concept of a technical society is that cooperation and free information exchange foster and abet technological development. Let us see whether the same synergism can be applied to professionalism. Vote yes on the IEEE Constitution change.

Anthony Robbi
Vice Chairman of CSIT

EXHIBIT I

List of other persons expected to be interested in participating in Working Groups.

Recommended by members of CSIT.

Keith Bose
11 Dexter Lane
Kings Park, N.Y. 11754

Harvey Citrin
Sperry Rand Corp.
Lakeville Road
Great Neck, N.Y. 11020

  Home: 131 Willoughby Ave.
            Brooklyn, N.Y. 11205

George Ellery
4324 Leslie St.
Detroit, Michigan 48238

Harvey Freeman
Govt. and Comm. Syst. Div.
RCA Corp.
Camden, N.J. 080100

Prof. Jack Sklansky
Dept. of Elec. Engrg.
University of California-
 Irvine
Irvine, Ca. 92664

Prof. Carl Barus
Engineering Dept.
Swarthmore College
Swarthmore, Pa. 19081

Prof. Wayne Chen
Dept. of Elec. Engrg.
University of Florida
Gainesville, Fla. 32601

Carl Dreher
RFD 5
Brewster, N.Y. 10509

Prof. John B. Lewis
Dept. of Elec. Engrg.
Pennsylvania State University
State College, Pa. 16802

Prof. Samuel S. Mason
Dept. of Elec. Engrg.
Massachusetts Inst. of Technology
Cambridge, Mass. 02139

Prof. Marvin C. Paull
Computer Science Dept.
Livingston College
Rutgers University
New Brunswick, N.J. 08900

Dr. Harvey Rubin
Bell Telephone Labroatories
Holmdel, N.J. 09733

Prof. David Vandelinde
Dept. of Elec. Engrg.
Johns Hopkins University
Baltimore, Md. 21218

Dr. Aaron Wyner
Bell Telephone Laboratories
Murray Hill, N.J. 07971

Paul M. Russo
RCA Laboratories
Box 432
Princeton, N.J. 08540

William A. Gross
Director of Research
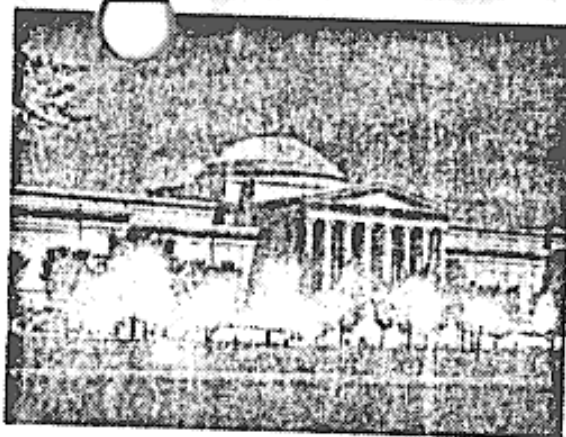Ampex Corp.
Redwood City, Ca. 94063

Lee Horowitz
507 West 111 St.
New York, N.Y. 10025

David Wuchinich
330 W. 101 St.
New York, N.Y. 10025

Prof. Altman
Urban and Policy Science Dept.
SUNY at Stony Brook
Stony Brook, N.Y. 11790

EXHIBIT I

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Edward Trunk
2424 Hudson St.
East Meadow, Long Island,
 New York 11554

Prof. Ben Nichols
Dept. of Elec. Engrg.
Cornell University
Ithaca, N.Y. 14850

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TECHNICAL PROGRAM

Each session of the Technical Program is briefly outlined below. In most cases the speakers and their subjects are identified and an indication of the Program Coordinator's aims in arranging the session is given.

Stan Winkler
Program Chairman

KEYNOTE SESSION:

Tuesday, October 24, 9:30-11:45 a.m.
Chairman: Dr Maurice Karnaugh. *IBM, T. J. Watson Research Center, Yorktown Heights, New York.*
Title: Computer Communications in Industrially Advanced Nations the Social, Political, and Economic Dynamics of a New Technology

Theme: This session will explore the needs, genesis, status, and plans for computer communications in Japan, the U.S.A., the U.S.S.R., and Western Europe. Sociopolitical and economic factors will be emphasized and their influences on the implementations will be examined.

Keynote Speakers:

Yasuo Makino, *Administrative Director of Telecommunications, Ministry of Post and Telecommunications, Tokyo, Japan.*

T. Larsson, *Deputy Director General, Central Administration of Swedish Telecommunications, Farsta, Sweden.*

(Speaker to be named), *Office of Telecommunications Policy, Executive Office of the President, Washington, D. C., U.S.A.*

(Speaker invited) *Council for Cybernetics, U.S.S.R. Academy of Sciences, Moscow, U.S.S.R.*

SESSION 2:

Tuesday, October 24, 2:00-4:30 p.m.
Title: RESPONSIBILITY — A PANEL
Chairman: Dr. Herbert Maisel, *Director, Computation Center and Associate Professor of Computer Science, Georgetown University, Washington, D. C.*
Program Coordinator: Louis Feldner, F.C.C., *Common Carrier Bureau, Washington, D. C.*

Theme: Everyone concedes the tremendous impact that computer communications will have in our society in the coming decades. Some say that this impact is already substantially upon us. A new technology with enormous impact necessarily modifies many of our day-to-day activities. It is important that this modification benefit mankind and especially that it promote, in Norbert Wiener's words, "The human use of human beings." This implies responsibility — the need to establish principles and guidelines and to channel these technological developments in accordance with these principles and guidelines.

This panel will speak on several aspects of the subject of responsibility.

Speakers:

Commissioner Robert E. Lee, *Federal Communications Commission, Washington, D. C.*

Dr. Yonosuke Nagai, *Professor of Politics, Tokyo Institute of Technology, Tokyo, Japan.*

Dr. Joseph Weizenbaum, *Professor of Computer Science, Massachusetts Institute of Technology, Cambridge, Massachusetts.*

SESSION 3:

Tuesday, October 24, 2:00-4:30 p.m.
Title: TELECONFERENCING THE COMPUTER, COMMUNICATION, and ORGANIZATION
Chairman: David W. Conrath, *University of Waterloo, Waterloo, Canada*
Program Coordinator: Gordon B. Thompson, *Bell-Northern Research, Ottawa, Canada*

Theme: The general theme of the session will be the role of the computer as an intermediate processor in communication between two or more individuals with a common purpose. What can the computer do in such a role? How might it enhance communication effectiveness over non-processed messages? Can it speed up the pace of sending and receiving between two parties to a communication interaction? Can computer aided communication bring about new dimensions to the communication experience? What are the constraints of computer aided communication? How should individuals interface with each other when using the computer as an intermediary?

Papers:

Computer Assisted Expert Interrogation — Andrew J. Lipinski, Hubert M. Lipinski, & Robert M. Randolph, *Institute for the Future, Menlo Park, California.*

Oracle: Computerized Conferencing in a Computer-Assisted Instruction System — James Schuyler & Robert Johansen, *Northwestern University, Evanston, Illinois.*

Party Line and Discussion: Computerized Conference System — Murray Turoff, *Office of Emergency Preparedness, Washington, D. C.*

Computer at Wits End Leads to Process Pattern Recognition — H. J. B. Nevitt, *Ontario Development Corporation.*

Alternative Future Computer-Communications Markets — D. A. Dunn, *Stanford, University.*

Measuring the Computer's Impact on Organizational Structure — David W. Conrath, *University of Waterloo, Waterloo, Canada.*

Discussants:

Professor J. C. R. Licklider, *Massachusetts Institute of Technology, Cambridge, Massachusetts.*

Professor Nathaniel Macon, *American University, Washington, D. C.*

SESSION 7:

Wednesday, October 25, 9:00-11:30 a.m.
Title: NETWORKS — RECENT DEVELOPMENTS
Chairman: Dr. Jack Moshman, *Moshman Associates, Washington, D. C.*
Program Coordinator: Dr. Stanley Winkler, *IBM, Gaithersburg, Maryland.*

Papers:

Implementation of International Data Exchange Networks — N. G. Anslow & J. Hanscott, *BOAC, London Airport, Hounslow, Middlesex, England.*

The Network Control Center for the ARPA Network — Alexander A. McKenzie, Bernard P. Cosell, John M. McQuillan & Martin J. Thrope, *Bolt, Beranek and Newman Inc., Cambridge, Massachusetts.*

CANUNET Topological Analysis & Design — John deMercado, Rene Guindon, John Da Silva, & Michel Kadoch, *Communication Study Group, Terrestrial Planning Branch, Department of Communications, Ottawa, Canada*

The European Computer Network Project — D. L. A. Barber, *National Physical Laboratory, Teddington, Middlesex, England.*

Mixed Computer Networks: Benefits, Problems, and Guidelines — B. T. Smith, *Civil Service Department, U. K. Government, London, England.*

SESSION 8:

Wednesday, October 25, 9:00-11:30 a.m.
Title: DATA NETWORK DESIGN PROBLEMS I
Chairman: Dr. Paul Oliver, *UNIVAC, Washington, D. C.*
Program Coordinator: Dr. Carl Hammer, *UNIVAC, Washington, D. C.*

Papers:

Signaling and Frame Structures in Highly Decentralized Loop Systems — P. Zafiropulo & E. H. Rothauser, *IBM Research Laboratory, Zurich, Switzerland.*

A Subscriber-Loop Signalling Technique for Synchronous Data Networks — C. S. Nokes, *IBM Research Laboratory, Zurich, Switzerland.*

A Linear Programming Approach to the Design of Efficient Multiplexed Wideband Transmission Systems — Maurice Millman, *Computer Sciences Corporation, Falls Church, Virginia.*

Comparison of Network Topology Optimization Algorithms — Dr. V. Kevin Moore Whitney, *GM Research Laboratories, Warren, Michigan.*

The Computer Media... ...ctive Human Communication System For Air Tra... ...rollers—Maurice Constant & Peter L. Seeley, Univer... ...Waterloo, Waterloo, Canada.

Discussants:

Douglas Engelbart, Stanford Research Institute, Menlo Park, California.

David Abbey, Ontario Institute for Studies in Education, Toronto, Canada.

SESSION 4:

Tuesday, October 24, 2:00-4:30 p.m.

Title: COMPUTERS AND A TELEPHONE COMMUNICATION SYSTEM OF THE FUTURE

Chairman: Laurin G. Fischer, Computer Science Corp., Falls Church, Virginia.

Program Coordinator: Dr. Wayne B. Swift, Policyholder Service Corp., Falls Church, Virginia.

Theme: The problems of operating a dial telephone system with program... ...ble digital control equipment are analyzed in the contex... of the U.K.; an approach taken at Plessy to solve these problems is outlined to the extent of illuminating clearly the nature of the choices available and a rationale for the choice of one particular approach.

Papers:

Structure and Internal Communications of a Telephone Control System—J. M. Crompton, Plessy Co., Ltd., Liverpool, England.

A Capability-Oriented Multi-Processor System for Real-Time Application—D. C. Cosseral, Plessy Co., Ltd., Liverpool, England

Fault Resistance and Recovery Within System 250—K. J. Hammer-Hodges, Plessy Co., Ltd., Liverpool, England.

Reliability Assurance for System 250—Dr. C. S. Repton, Plessy Co., Ltd., Liverpool, England.

SESSION 5:

Tuesday, October 24, 2:00-4:30 p.m.

Title: COMPUTER COMMUNICATIONS—AN EMERGING TOOL IN RESPONSE TO SOCIETY'S NEEDS?

Chairman: Reg A. Kaenel, AMF Inc., Stamford, Connecticut.

Speakers invited from India, Japan, Israel, Mexico, and England.

SESSION 6:

Wednesday, October 25, 9:00-11:30 a.m.

Title: IMPACTS I

Chairman: Andrew Lipinski, Institute for the Future, Menlo Park, California.

Program Coordinator: Gordon B. Thompson, Bell—Northern Research, Ottawa, Canada.

Theme: The Impact of Widespread Computer Communication Systems and Their Use.

Papers:

Computer-Communications Assisted Community of Tama, Japan—Kotaro Shimo, Minister of International Trade and Industry (M.I.T.I.), Japan.

SESSION 9:

Wednesday, October 25, 9:00-11:30 a.m.

Title: THE WIRED CITY

Chairman: Weston E. Vivian, Vicom Manufacturing Co. Inc., Ann Arbor, Michigan.

Program Coordinator: Dr. Phillip H. Enslow, Jr., OTP, Executive Office of the President, Washington, D. C.

Theme: Technical standards for community cable telev... ...on networks recently have been published by the FCC w... ...ch will require all future cable television networks in metropolitan areas to provide to and from every home, office and store, multi-megahertz-bandwidth duplex transmission capacity. In several cities today, messages, data, and private television already are being transmitted under computer control over portions of the city's cable television network.

Within this decade, most United States metropolitan areas can be expected to have such service. Over half the homes in Canadian metropolitan areas are served by cable now. As broadband two-way, city-wide transmission capacity comes into existence, new uses, new services, new communications, computer and peripheral configurations, and new computer programs will proliferate. Existing telephone installations also will provide competing services. By 1990, an investment of 30 to 50 billion dollars can be expected.

During this Session, the types of uses foreseen will be summarized and experimental tests to date described. Expected revenues, costs and capital requirements will be projected. Social and legal implications will be discussed.

Papers:

The Wired City: The Role of an Independent Telephone Company—R. M. Alden, Executive Vice President for Operations, United Utilities, Inc., Kansas City, Missouri.

The Wired City: Services for Home Delivery via Interactive Cable TV—William Mason, Mitre Corporation, McLean, Virginia.

The Wired City: Commercial Services to be Provided by Broadband Telecommunication Systems—John Thompson, Arthur D. Little, Inc., Cambridge, Massachusetts.

The Wired City: National and International Intercommunication—Paul Visher, Asst. Executive, Hughes Aircraft, Space and Communications Group, Culver City, California.

CONFERENCE LUNCHEON

Wednesday, October 25, 12 noon-1:45 p.m.

Speaker: Dr. Hans J. von Baeyer, Canadian Computer Communications Task Force, Ottawa, Canada.

Title: CONFLICT IN COMPUTER COMMUNICATIONS

SESSION 10:

Wednesday, October 25, 2:00-4:30 p.m.

Title: IMPACTS II

Chairman: Andrew Lipinski, Institute for the Future, Menlo Park, California.

Program Coordinator: Gordon B. Thompson, Bell-Northern Research, Ottawa, Canada.

Theme: The Impact of Widespread Computer Communication Systems and Their Use.

Papers:

Impact of LACES—London Airport Cargo EDP Scheme—N. D. Hill & T. F. Watling, ICL, England.

How the Public Perceives the Computer: Some Social-Psychological Dimensions — Thomas L. McPhail, Ph.D., *Chief, Social Environment Planning Unit, Department of Communications, Government of Canada, Ottawa, Canada.*

Computer-Assisted Instruction — National Project in Japan — Mr. Ilaya, *Japan Society for Promotion of Machine Industry (KISHINKYOU);* Dr. Shigiru Watanabe, *University of Tokyo;* Dr. Takao Mura, *Hitachi, Ltd.*

Impact of Computer-Communications as Tools in the Social and Economic Development of Canada — H. J. von Baeyer, *Department of Communications, Ottawa, Ontario.*

Discussant:

Raymond G. Fox, *IBM, Gaithersburg, Maryland.*

SESSION 11:

Wednesday, October 25, 2:00-4:30 p.m.

Title: COMPUTER COMMUNICATION NETWORKS FOR HIGHER EDUCATION

Chairman: Professor Martin Greenberger, *Chairman of the Computer Science Department, Johns Hopkins University.*

Program Coordinator: Stuart L. Mathison, *Arthur D. Little, Inc., Cambridge, Massachusetts.*

Theme: The motivation for regional and national computer networks for higher education will be discussed along with a summary of the major networking efforts underway. Included will be the ARPA network, the National Science Foundation Network, and several presently operating regional networks. Other topics to be covered include network management, usage of networks for computing and instruction, research applications, implications for computer centers in higher education, and future trends.

Papers:

Implementation of a Network for the Universities of South West England — R. H. Howell, *International Computers, Ltd., University of Bristol, Bristol, England.*

Canadian Efforts to Develop University Networks — Prof. Eric G. Manning, *Associate Chairman, Department of Computer Science, University of Waterloo, Waterloo, Canada.*

NSF Activities Related to a National Science Network — Dr. Don Aufenkamp & E. C. Weiss, *Office of Computing Activities, National Science Foundation, Washington, D. C.*

The ARPA Network and American Universities — Dr. Robert E. Kahn, *Bolt, Beranek and Newman, Inc., Cambridge, Massachusetts.*

12:

Wednesday, October 25, 2:00-4:30 p.m.

Title: DATA NETWORK DESIGN PROBLEMS II

Chairman: G. J. Lissandrello, *IBM World Trade Corporation, New York, New York.*

Program Coordinator: Dr. Carl Hammer, *UNIVAC, Washington, D. C.*

Papers:

A Packet Switching Network With Graceful Saturated Operation — Remi F. Despres, *Centre National D'Etudes des Telecommunications (CNET), Issy-Les-Moulineaux, France.*

Some Effects of Switched Network Time Delays and Transmission Speed on Data Based/Data Communications Systems — J. F. Marchese & W. Gernard, *IBM Research Laboratory, Zurich, Switzerland*

Current and Near Future Data Transmission Via Satellites of

SESSION 15:

Thursday, October 26, 9:00-11:30 a.m.

Title: DATA BANKS AND INDIVIDUAL PRIVACY

Chairman: Dr. Alan F. Westin, *Professor of Law and Political Science, Columbia University, New York, New York.*

Program Coordinator: Philip M. Walker, *Georgetown University Law Center, Washington, D. C.*

Theme: This session will attempt to compare the experience of the U. S., Canada, and several European countries in developing, using, and controlling computer-based data banks which contain information on the individual citizen. The current state of data bank development in each country will be described, and the legal measures—legislation, regulatory agency actions, and court decisions—taken to prevent infringement of the individual's civil liberties will be explained. Any steps taken by the computer industry or professional organizations in these countries to protect privacy in data banks will also be explored. Finally, each speaker will discuss those government and private actions which he feels should be taken in his country to safeguard the right of privacy in the computer data bank.

Papers:

Developments in the U.K. — Dr. G. B. F. Niblett, *Chairman, Law Specialist Group, British Computer Society, London, England.*

Developments in Canada — Dr. Caleb C. Gotlieb, *Professor of Computer Science, University of Toronto, Toronto, Canada.*

Developments in West Germany and Continental Europe — Dr. Hans P. Gassman, *Directorate for Scientific Affairs, Organization for Economic Co-operation & Development, Paris, France.*

Implications for the U. S. from Foreign Developments — Dr. Alan F. Westin, *Professor of Public Law and Government, Columbia University, New York, New York.*

16:

Thursday, October 26, 9:00-11:30 a.m.

Title: TELEPROCESSING — THE UTILITY OF THE COMPUTER UTILITY

Chairman: Gerald H. Brody, *Manager, Telecommunications Marketing, System Engineering, Raytheon Data Systems Company*

Program Coordinator: Dr. Philip H. Enslow, Jr., *OTP, Executive Office of the President, Washington, D. C.*

Theme: The existence of Teleprocessing networks and computer utilities is an accepted fact, both on a national and global scale. This session will examine the effectiveness of today's operations, what direction they may go towards in the future, what benefits, both social and economic are possible, and what impediments may exist in the technical and legal domains.

Papers:

The Computer Utility: New Problem or New Challenge — Max P. Beere, *Director of Telecommunications Systems, TYM-SHARE Inc.*

The Future of Computer Utilities — Dr. George J. Feeney, *Information Systems Division, General Electric.*

On Some Trends in Computer and Data Networks in Europe — Professor Peter Thomas Kirstein, *Institute of Computer Science, University of London, London, England.*

Papers:

Programmable Communication Processors — J. Sobolewski, *Departments of Computer Science, Electrical Engineering and the Computing Center, Washington State University, Pullman, Washington.*

The Approach of Software Problems in the SOC Experimental Computer Network — Monique Somia, *IBM France, Paris, France.*

The User Department and The Computer — or How to Get More Profit Out of the Computer Investment, Quickly — C. R. M. Singer, *International Computers, Ltd., London, England.*

Protection of Proprietary Software Programs in the United States — Roy N. Freed, *Widett & Widett, Boston, Massachusetts.*

Discussants:

K. Walk, *IBM Austria, Vienna, Austria.*

Edward Ryan, *Central Intelligence Agency, Washington, D. C.*

19:

Thursday, October 26, 2:00-4:30 p.m.

Title: SOCIAL CONCERNS

Chairman: William E Hanna, Jr., *Social Security Administration.*

Program Coordinator: Dr. Peter E. Jackson, *Bell Telephone Laboratories.*

Theme: The diverse and virtually unlimited potential for application, good or bad, of computers and data communications to man in his role as a social being.

Papers:

EMISARI — An On-Line Management System in a Dynamic Environment — Dr. Robert H. Kupperman & Richard H. Wilcox, *Office of Emergency Preparedness.*

The Nature of Computer Related Crime — Donn B Parker, *Stanford Research Institute.*

A Program for National Weather Service Field Administration — Gerald A. Petersen, *National Weather Service.*

Data Communications Sovereignty and the Electorate — Robert A. Knisely, *Department of Housing and Urban Development.*

20:

Thursday, October 26, 2:00-4:30 p.m.

Title: PUBLIC DATA COMMUNICATION NETWORKS NEED, TECHNOLOGY AND POLICY

Chairman: Lynn Hopewell, *Vice President, Network Analysis Corporation, Glen Cove, New York*

Program Coordinator: Virginius N. Vaughan, Jr., *American Telephone and Telegraph Company, New York, New York*

Theme: Telecommunications common carrier administrations in many countries are considering strategies for developing new networks for meeting the specialized communications requirements of computer-communication system users. Although all administrations are viewing basically the same user market, substantially different conclusions regarding user requirements and resulting carrier technical strategies are resulting.

The purpose of this Conference session is to provide a forum for the carriers, users and policymakers, to interact and explore this complex environment.

Papers:

Planning of Data Communication Networks: Economic, Technological and Institutional Issues — Dieter Kimbel, Or-

the Interface Network—John M. Husted, COMSAT Laboratories, Clarksburg, Maryland.

The Structure of a Distributed Computing System—The Distributed File System—Frank Heinrich & David J. Farber, University of California, Irvine, Irvine, California.

The Use of Distributed Data Bases in Information Networks—Grayce M. Booth, Senior Systems Engineer, Honeywell Information Systems, Phoenix, Arizona.

SESSION 13:

Wednesday, October 25, 2:00-4:30 p.m.

Title: THE ROLE OF COMPETITION

Chairman: Donald I. Baker, Director of Policy Planning, Antitrust Division, U. S. Department of Justice.

Program Coordinator: Philip M. Walker, Georgetown University Law Center, Washington, D. C.

Theme: This session will explore the role and implications of competition in the computer-communications industry, focusing on the following aspects of the subject:

1. Access to large computer-communications systems—efficiency vs. competition.

2. Competition among common carriers—specialized carriers and domestic satellites.

3. Competition in the remote-access data processing services industry—comparison of the U. S. experience with that of other countries.

4. Competition and carrier performance—a case study in interconnection.

Papers:

Donald I. Baker, Director of Policy Planning, Antitrust Division, U. S. Department of Justice, Washington, D. C.

Kenneth A. Cox, Senior Vice President, MCI Communications Corporation, Washington, D. C.

Yasuo Makino, Administrative Director of Telecommunications, Ministry of Posts and Telecommunications, Tokyo, Japan.

Dr. William H. Melody, Professor, Annenberg School of Communications, University of Pennsylvania, Philadelphia, Pennsylvania.

Charles R. Cutler, Kirkland, Ellis & Rowe, Washington, D. C.

SESSION 14:

Wednesday, October 25, 7:30-9:45 p.m.

Title: COMPUTER COMMUNICATION—THE QUIET REVOLUTION

Chairman: Dr. Stanley Winkler, IBM, Gaithersburg, Maryland.

Program Coordinator: Norman A. Heck, IBM, Gaithersburg, Md.

Theme: A non-technical exploration of the technological innovations which are changing the nature of the world and the environment in which we live.

Papers:

A Survey of White-Collar Workers' Attitudes in the Environment of Rapid-Response Computer Systems—David Butler, Senior Consultant, Urwick Dynamics, Ltd., London, England.

Computer Communications: The Future—Dr. Carl Hammer, Director, Computer Science, UNIVAC, Washington, D. C.

Three Characterizations of Communications Revolutions—Gordon B. Thompson, Bell-Northern Research, Ottawa, Canada.

(Additional speakers from Western Europe and Asia invited)

Discussants:

John C. LeGates, Executive Director, Educational Information Network EDUCOM.

Charles Dalcon, Legal Advisor to Canadian Department of Communications, Ottawa, Canada.

William M. Zani, Associate Professor of Business Administration, Harvard University Graduate School of Business Administration, Cambridge, Massachusetts.

SESSION 17:

Thursday, October 26, 9:00-11:30 a.m.

Title: HEALTH SERVICES

Chairman: Bruce D. Waxman, Director, Health Care Technology Division, Department of Health, Education, and Welfare, Public Health Service, Health Services and Mental Health Administration, Rockville, Maryland.

Program Coordinator: Lynn Hopewell, Vice-President, Network Analysis Corp., Glen Cove, New York.

Theme: This session will address itself to those highly applied applications of computers and communication to health care delivery. Major attention will be focused on those obstacles which hinder large scale deployment and diffusion of technological systems in the health care field.

Papers: Hospital Information Systems

Mort Ruderman, President, Meditech, Cambridge, Massachusetts.

Professor John Anderson, Department of Medicine, Kings College Hospital Medical School, University of London.

Mel Hodge, Technicon, Medical Information Systems Corp., Mountain View, California.

Discussant:

Gerald S. Cohen, Associate Director, Health Care Technology Division, National Center for Health Services Research and Development, Rockville, Maryland.

Papers: Ambulatory Care

Dr. Herbert Sherman, Beth Israel Hospital, Boston, Massachusetts.

Dr. Edward Vassola, Associate Professor of Neurology, State University of New York, Downstate Medical Center, Brooklyn, New York.

Discussant:

Dr. Richard Tompkins, Dartmouth College, Hanover, New Hampshire.

Papers: Broadband Communications Systems

Dr. Maxine L. Rockoff, Chief, Logistics Branch, Health Care Technology Division, National Center for Health Services Research and Development, Rockville, Maryland.

Discussant:

Dr. Alex Reid, Communications Studies Group, University College of London.

SESSION 18:

Thursday, October 26, 9:00-11:30 a.m.

Title: SOFTWARE ASPECTS IN COMPUTER COMMUNICATION

Chairman: Dr. Wayne B. Swift, Policyholder Service Corp., Falls Church, Virginia.

Program Coordinator: Dr. Carl Hammer, UNIVAC, Washington, D. C.

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ganization for Economic Coordination and Development, Paris, France.

Data Communication Services in Western Europe: Present and Future—August Ohlmer, Ministerialrat, Bundesministerium für das Post-und Fernmeldewesen, Federal Republic of Germany.

The Public Telephone Network and Computer Communications in Japan—Ken'ichiro Hirota, Nippon Telegraph and Telephone Public Corporation, Tokyo, Japan.

(Title unavailable)—I. P. Sharp, I. P. Sharp Associates, Ltd., Toronto, Ontario, Canada.

Discussants:

Jean F. Berry, AFUT, France.

Clayton Andrews, IBM, Zurich, Switzerland.

21:

Thursday, October 26, 2:00-4:30 p.m.

Title: COMPUTERS AND LIBRARIES OF THE FUTURE

Chairman: Dr. Lawrence P. Grayson, Acting Director, Division of Technology Development, National Center for Educational Technology, U. S. Office of Education.

Program Coordinator: Charles R. Fisher, Director, Switching Systems Engineering, Data Transmission Co., Vienna, Virginia.

Paper:

What the Library of the Future Might Be Like—Dr. Carlos A. Cuadra, Manager, Education and Library Systems Department, Systems Development Corporation.

Discussants:

Frank K. Cylke, Executive Secretary, Federal Library Committee, Library of Congress.

Dr. Donald L. Katz, Alfred Holmes White University Professor of Chemical Engineering, University of Michigan.

Papers:

Societal Considerations That May Affect Future Libraries—Warren L. Ziegler, Co-Director, Educational Policy Research Center, Syracuse University.

Legal Considerations That May Affect Future Libraries—Dr. John Farmakides, Atomic Safety and Licensing Panel, Atomic Energy Commission.

Economic Considerations That May Affect Future Libraries—Frederick G. Kilgour, Director, The Ohio College Library Center.