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Oettinger

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Date Needed: \_\_\_\_\_

Special Instructions

Page 1 of 1 Total Number of Photocopies in Order

Ordered by: Susan [unclear]  Date: 6/12/08

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Call #	Box #	Folder Title	Item Description	Total Pages Per Item	
1					<p style="text-align: center;"><b>NOTICE</b></p> <p style="text-align: center;"><b>WARNING CONCERNING COPYRIGHT RESTRICTIONS</b></p> <p>The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted material. Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to be "used for any purpose other than private study, scholarship, or research." If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement. This institution reserves the right to refuse to accept a copying order if, in its judgement, fulfillment of the order would involve violation of the copyright law.</p>
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**CHART OF ACCOUNTS BILLING CODE**

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Mail  Cash:

Tub (3)	Org (5)	Obj (4)	Fund (6)	Act (6)	Sub (4)	Root (5)

Total Cost

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JUN 17 2008

HARVARD UNIVERSITY ARCHIVES

Date Delivered: \_\_\_\_\_

Order taken by: \_\_\_\_\_

DeHinger - Sumner  
Executive Order  
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-NAC 5/24  
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THE PRESIDENT

Executive Order 11556

ASSIGNING TELECOMMUNICATIONS FUNCTIONS

By virtue of the authority vested in me by section 301 of title 3 of the United States Code, and as President of the United States, and in consonance with the intention expressed in my message to the Congress transmitting Reorganization Plan No. 1 of 1970, it is hereby ordered as follows:

SECTION 1. *Amended and superseded orders.* Executive Orders Nos. 10705 of April 17, 1957, 11051 of September 27, 1962, 11191 of January 4, 1965, and 11490 of October 25, 1969, and the President's Memorandum of August 21, 1963, headed "Establishment of the National Communications System" (28 F.R. 9413) are amended as provided herein. Executive Orders Nos. 10695-A of January 16, 1957, 10995 of February 16, 1962, and 11084 of February 15, 1963, to the extent not heretofore made inapplicable, are hereby revoked.

SEC. 2. *General functions.* Subject to the authority and control of the President, the Director of the Office of Telecommunications Policy (hereinafter referred to as the Director) shall:

(a) Serve as the President's principal adviser on telecommunications.

(b) Develop and set forth plans, policies, and programs with respect to telecommunications that will promote the public interest, support national security, sustain and contribute to the full development of the economy and world trade, strengthen the position and serve the best interests of the United States in negotiations with foreign nations, and promote effective and innovative use of telecommunications technology, resources, and services. Agencies shall consult with the Director to insure that their conduct of telecommunications activities is consistent with the Director's policies and standards.

(c) Assure that the executive branch views are effectively presented to the Congress and the Federal Communications Commission on telecommunications policy matters.

(d) Coordinate those interdepartmental and national activities which are conducted in preparation for U.S. participation in international telecommunications conferences and negotiations, and provide to the Secretary of State advice and assistance with respect to telecommunications in support of the Secretary's responsibilities for the conduct of foreign affairs.

(e) Coordinate the telecommunications activities of the executive branch and formulate policies and standards therefor, including but not limited to considerations of interoperability, privacy, security, spectrum use and emergency readiness.

(f) Evaluate by appropriate means, including suitable tests, the capability of existing and planned telecommunications systems to meet national security and emergency preparedness requirements, and report the results and any recommended remedial actions to the President and the National Security Council.

(g) Review telecommunications research and development, system improvement and expansion programs, and programs for the testing, operation, and use of telecommunications systems by Federal agencies. Identify competing, overlapping, duplicative or inefficient programs, and make recommendations to appropriate agency officials and to the Director of the Office of Management and Budget concerning the scope and funding of telecommunications programs.

(h) Coordinate the development of policy, plans, programs, and standards for the mobilization and use of the Nation's telecommunications resources in any emergency, and be prepared to administer such resources in any emergency under the overall policy direction and planning assumptions of the Director of the Office of Emergency Preparedness.

THE PRESIDENT

(i) Develop, in cooperation with the Federal Communications Commission, a comprehensive long-range plan for improved management of all electromagnetic spectrum resources.

(j) Conduct and coordinate economic, technical, and systems analyses of telecommunications policies, activities, and opportunities in support of assigned responsibilities.

(k) Conduct studies and analyses to evaluate the impact of the convergence of computer and communications technologies, and recommend needed actions to the President and to the departments and agencies.

(l) Coordinate Federal assistance to State and local governments in the telecommunications area.

(m) Contract for studies and reports related to any aspect of his responsibilities.

SEC. 3. *Frequency assignments.* The functions transferred to the Director by section 1 of Reorganization Plan No. 1 of 1970 include the functions of amending, modifying, and revoking frequency assignments for radio stations belonging to and operated by the United States, or to classes thereof, which have heretofore been made or which may be made hereafter.

SEC. 4. *War powers.* Executive Order No. 10705 of April 17, 1957, headed "Delegating Certain Authority of the President Relating to Radio Stations and Communications", as amended, is further amended by:

(a) Substituting for subsection (a) of section 1 the following: "(a) Subject to the provisions of this order, the authority vested in the President by subsections 606 (a), (c), and (d) of the Communications Act of 1934, as amended (47 U.S.C. 606 (a), (c) and (d)), is delegated to the Director of the Office of Telecommunications Policy (hereinafter referred to as the Director). That authority shall be exercised under the overall policy direction of the Director of the Office of Emergency Preparedness."

(b) Substituting for the text "subsections 305(a) and 606(a)" in subsection (b) of section 1 the following: "subsection 606(a)".

SEC. 5. *Foreign government radio stations.* The authority to authorize a foreign government to construct and operate a radio station at the seat of government vested in the President by subsection 305(d) of the Communications Act of 1934, as amended (47 U.S.C. 305(d)), is hereby delegated to the Director. Authorization for the construction and operation of a radio station pursuant to this subsection and the assignment of a frequency for its use shall be made only upon recommendation of the Secretary of State and after consultation with the Attorney General and the Chairman of the Federal Communications Commission.

SEC. 6. *Office of Emergency Preparedness.* (a) Executive Order No. 11051 of September 27, 1962, headed "Prescribing Responsibilities of the Office of Emergency Planning in the Executive Office of the President", as amended, is further amended by:

(1) Deleting subsection 301(4) and renumbering subsection 301(5) as subsection 301(4).

(2) Substituting for section 306 the following:

"Sec. 306. *Emergency telecommunication.* The Director shall be responsible for providing overall policy guidance to the Director of the Office of Telecommunications Policy in planning for the mobilization of the Nation's telecommunications resources in time of national emergency."

## THE PRESIDENT

(3) Deleting section 406.

SEC. 7. *Emergency preparedness.* Executive Order No. 11490 of October 28, 1969, headed "Assigning emergency preparedness functions to Federal departments and agencies," as amended, is hereby further amended (1) by substituting "Policy (35 F.R. 6121)" for "Management (OEP)" in section 401 (27), and (2) by substituting the number of this order for "10995" in section 1802 and in section 2002 (3).

SEC. 8. *National Communications System.* The President's Memorandum of August 21, 1963, headed "Establishment of the National Communications System" (28 F.R. 9413), is amended by:

(a) Substituting the following for the first paragraph after the heading "Executive Office Responsibilities":

"The Director of the Office of Telecommunications Policy shall be responsible for policy direction of the development and operation of the National Communications System and shall:"

(b) Substituting the term "Director of the Office of Telecommunications Policy" for the term "Special Assistant to the President for Telecommunications" wherever it appears in said memorandum.

SEC. 9. *Communications Satellite Act of 1962.* Executive Order No. 11191 of January 4, 1965, headed "Providing for the Carrying Out of Certain Provisions of the Communications Satellite Act of 1962", is amended by:

(a) Substituting the following for subsection (c) of section 1:

"(c) The term 'the Director' means the Director of the Office of Telecommunications Policy," and

(b) Substituting the following for the catchline of section 2: "Director of the Office of Telecommunications Policy."

SEC. 10. *Advisory committees.* As may be permitted by law, the Director shall establish such interagency advisory committees and working groups composed of representatives of interested agencies and consult with such departments and agencies as may be necessary for the most effective performance of his functions. To the extent he deems it necessary to continue the Interdepartment Radio Advisory Committee, that Committee shall serve in an advisory capacity to the Director. As may be permitted by law, the Director also shall establish one or more telecommunications advisory committees composed of experts in the telecommunications area outside the Government.

SEC. 11. *Rules and regulations.* The Director shall issue such rules and regulations as may be necessary to carry out the duties and responsibilities delegated to or vested in him by this order.

SEC. 12. *Agency assistance.* All executive departments and agencies of the Federal Government are authorized and directed to cooperate with the Director and to furnish him such information, support and assistance, not inconsistent with law, as he may require in the performance of his duties.

SEC. 13. *Functions of the Secretary of Commerce.* The Secretary of Commerce shall support the Director in the performance of his functions, shall be a primary source of technical research and analysis and, operating under the policy guidance and direction of the Director, shall:

(a) Perform analysis, engineering and administrative functions, including the maintenance of necessary files and data bases, responsive to the needs of the Director in the performance of his responsibilities for the management of the radio spectrum.

(b) Conduct technical and economic research upon request to provide information and alternatives required by the Director.

(c) Conduct research and analysis on radio propagation, radio systems characteristics, and operating techniques affecting the utilization of the radio spectrum in coordination with specialized, related research and analysis performed by other Federal agencies in their areas of responsibility.

THE PRESIDENT

(d) Conduct research and analysis in the general field of telecommunication sciences in support of other Government agencies as required and in response to specific requests from the Director.

(e) Conduct such other activities as may be required by the Director to support him in the performance of his functions.

Sec. 14. *Retention of existing authority.* (a) Nothing contained in this order shall be deemed to impair any existing authority or jurisdiction of the Federal Communications Commission. In carrying out his functions under this order, the Director shall coordinate his activities as appropriate with the Federal Communications Commission and make appropriate recommendations to it as the regulator of the private sector.

(b) Except as specifically provided herein, nothing in this order shall be deemed to derogate from any existing assignment of functions to any other department or agency or officer thereof made by statute, Executive order, or other Presidential directives.

*Richard Nixon*

THE WHITE HOUSE,  
September 4, 1970.

[F.R. Doc. 70-12017; Filed, Sept. 4, 1970; 4:58 p.m.]

Oettinger - ~~Seminar~~

404  
Oettinger

SEMINAR

COMPUTERS-COMMUNICATIONS

21 January 1971

MORNING SESSION 0930 - 1200

CS&E

Lewis Billig  
Sidney Fernbach  
Anthony G. Oettinger  
Thomas Thompson

OTP (tentative)

Charles Culpepper  
Philip Enslow  
Walter Hinchman  
Charles Joyce

establish lunch  
time & place  
+ note for  
Ron at office  
56 at office

LUNCH

CLASSIFIED DISCUSSION FOR TS INFORMATION

AFTERNOON SESSION 1330 - 1530

CS&E

~~Sidney Fernbach~~  
John Griffith  
Warren C. House  
Anthony G. Oettinger  
Ronald Wigington

OTP (tentative)

Sebastian Lasher  
George Mansur - Collins  
Tonin Scalia Deputy  
Jack Thornell  
C. T. Whitehead

Armin Kandygan  
Office of Telecom  
Louis De Rosa  
DoD  
Ken Goodwin  
Budget Exam  
APCA  
L Planning Office  
FA  
Apollo S-Band  
Commical

NAS 5/24

Oettinger - February 9, 1972

9 February 1972

Dear Lew,

Attached is a memo from Phil Enslow, OTP and the work statement from a much thicker RFP.

It would be helpful if you would come to the forthcoming meeting of the Executive Committee for the Board prepared to look at this project in terms of possible assistance which could be provided by the Board. I am not, of course, thinking in terms of responding to the RFP. Rather, I am thinking along the lines of a consultative or advisory group of upwards of six people who might conceivably be of help to OTP during the proposed contract. The other aspect of my interest, of course, is in having someone or ones from the Board involved in what appears to be a very, very basic take-off study of the computer communications area. To my way of thinking, it would be a sad, sad thing to see this effort launched and completed without some involvement by the CS&E Board.

I do not wish to clutter up the agenda of the Executive Committee on the 15th. The Chairman wishes to hold the Committee to a discussion of the main topics arising from the last EXCOM meeting. I would hope that we could chat about this between one of the three meetings set up for the 15th and the 16th.

I am copying Tony, Jerry Haddad, and John Griffith. Thanks much.

Sincerely,

Warren.....

Attachment  
As stated

cc: A. G. Oettinger  
J. Haddad  
J. Griffith

WCH/las



OFFICE OF TELECOMMUNICATIONS POLICY  
EXECUTIVE OFFICE OF THE PRESIDENT

WASHINGTON, D.C. 20504  
JAN 31 1972

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FEB 2 1972

MEMORANDUM

TO: University Staffs and Others Interested in Computer-Data  
Communications

FROM: Philip H. Enslow Jr. *Phil Enslow*  
Senior Staff Assistant

SUBJECT: OTP Request for Proposals for a Study Contract

Because of your interest in this area I have included your name on the initial mailing list for the RFP. Of primary interest to you will be the SCOPE OF WORK STATEMENT, the last 8 pages, and the comments on the qualifications required of the contractor which are given in the front section (paragraph 9). This document will give you the best picture available right now of the work that we are doing; however, we plan to move on into other allied areas very soon.

Unless you specifically write and ask us, we will not bother you with further mailings on this RFP (mostly just changes in the administrative instructions).

I am certainly interested in your comments on the work proposed, what you are doing, and how we might interact in future.

## SCOPE OF WORK

### INTRODUCTION

There are two basic objectives of this proposed contract effort. The first is to perform the basic research and analysis required to develop a full understanding of the technical and economic factors relevant to computer/data communications and how those factors interact in the design, application, and evaluation of teleprocessing systems. The second is to develop the analytic models and tools that are necessary to permit the examination of the relevant factors identified in part one, below.

The contractor selected will be expected to bear in mind at all times that the work being performed is for use in examining and evaluating relevant policy issues in the area of computer and data communications. Therefore, the work performed must support that purpose. However, specifically excluded from the scope of this contract effort is any examination of the policy issues involved, the development of alternative policies possible, or recommendations covering changes or effects of new policies. Understandably, the contractor selected may wish to make comments including complete analyses of this area in the context of the data developed during this study. Such comments would be permissible, although not within the funded basis of this contract. Any such comments may be submitted as a supplement to the primary study report. It is anticipated that the study report will be given wide distribution and it would not be desirable to have policy analysis material as an integral portion.

### PART ONE -- Analysis of Cost-Effectiveness of Alternative Teleprocessing System Configurations

The contractor shall assemble cost, performance, and engineering data necessary, and perform the analysis necessary to determine the comparative cost/performance characteristics of alternative system configurations for data-based teleprocessing systems, and the trade-offs between computation, communications, storage, management, and other related costs under the various assumptions listed below. Since no single system organization will apply under all situations, the results of this portion of the study will be analytic models that may be used to evaluate and rank the cost-effectiveness of alternative system configurations for various cost and performance factors of its components computer program implementation and demonstration of the analytical models will be required. Event-type simulation, however, will neither be required nor desired.

Because of the uncertainties in predicting future cost and performance factors as well as applications system requirements, the models must be highly parameterized and capable of handling variations in the factors listed below as a minimum:

- A wide range of capabilities in all areas (computation, communications, and storage) from those presently available to values that can be projected as possible for the period through 1980.
- Variations in the cost/performance ratios in each of the areas being considered.
- A wide variety of communications services possible being available, with the services to be considered not restricted to those presently available or announced.
- A wide range of size increments available for all the areas being considered. It is preferable that the model be able to handle a continuum of sizes to permit greater flexibility of use, although it is understood that such services will not actually be made available.
- A variety of possible applications characterized by varying ratios between the amount of information transmitted to and from the central processor and the processing performed on it at that location. The applications to be considered should include the provision of both computational and communications services.
- A fundamental restructuring of service offerings and costs.

PART TWO -- Background Study of Integrated Computer-Communications Systems

The contractor shall collect and develop the background information, analytic models, tools, and estimates of technological progress necessary to permit the staff of the Office of the Telecommunications Policy to examine the effects of alternative communications policies and the validity of the hypothesis that large-scale integrated computer-communications (hybrid tele-processing) systems are economically viable and offer attractive market potential for private enterprises to offer to the public on a multiple-customer, shared-system basis.

In addressing this portion of the study, the contractor shall consider as a minimum the following factors:

- The relationship between cost and performance of hardware for large-scale data processing system.
- The economies and diseconomies of scale attributable to large systems, taking into account the operational overhead of systems software, reliability, and support.
- The cost and capabilities of communication transmission and terminal equipment.
- The possible changes for all of the factors mentioned above due to technical trends for the period through 1980.
- Evolutionary patterns and factors influencing both the data processing and communications industries.

It will not be necessary, nor expected, for the contractor to estimate the potential market for specific hybrid teleprocessing services. The accuracy of such estimates would always be open to question and would add nothing to the value of the study results. It will be necessary, however, for the contractor to assume a variety of possible applications characterized by varying ratios between the amount of information transmitted to and from the central processor and the processing performed on it at that location. The applications considered should include the provision of both computational and communications services and be valid representations of possible real-world, service offerings. In executing this portion of the study, the contractor should also consider the effects of the ability to utilize the various system organization examined in part one of this study.

#### GOVERNMENT FURNISHED DATA AND SUPPORT

OTP has available some market projections and other information relating to estimates for the future requirements for teleprocessing systems and data communications of future requirements in these areas. These will be made available insofar as possible for reference by the contractor personnel working on this study. Under most circumstances, however, it will not be permitted to copy or to remove this material from the OTP offices.

#### COMPUTER TIME

The computer time and other facilities required for the implementation and testing of the models developed as well as their use in deriving study results will be provided by the contractor. The contractor will also provide the computer time required for the demonstration of their use required as part of the final deliverables. OTP terminal equipment will be used for that demonstration.

DELIVERABLES

A. Formal Audio-Visual Presentations

- An initial presentation will be made to the OTP staff shortly after the award of the contract. At this briefing the contractor will be expected to present his detailed work plan and receive the benefits of further guidance and comments by the OTP staff.
- The only other formal presentation required will be a complete report on the study results, the applicability of the results, and a demonstration of the computational aids prepared. This presentation will be held after completion of the formal study work and will permit the contractor and the OTP staff to discuss and agree upon the form and content for the written final and other documentation to be submitted. The initial proposal should include the contractor's recommendations on this subject.

B. Interim Report

Approximately halfway through the study period the contractor will submit a written report to OTP in five copies outlining his progress to date and the methodology being employed to conduct the study.

C. Written Final Report

A formal written report will be required. It will be a complete discussion of the problem studies, the methodology employed, assumptions and approximations made, and the results derived to include computational aids developed. It will be a complete exposition of the subject matter, not requiring reference to other documents for interpretation and understanding, and will conform with the standards for high quality technical reports. The following comments provide initial guidance in its preparation and format.

- A short executive summary will be provided, summarizing
- The liberal use of visual forms of presenting the data and results is encouraged.

- The following are required as deliverables:
  - . The originals of the report or high quality copies suitable
  - . Ten copies of the report.

D. Computer Programs For Models and Computational Aids

Although the computer programs and other computational aids developed during the study will be described in the written report, the descriptions provided there will not necessarily be complete enough to permit their ready use and modification. Complete program documentation, therefore, will be required as a separate deliverable. The programs themselves will be delivered in a direct machine-readable form, to be specified by OTP. (A possible alternative delivery form that may be suitable is to deliver them as files stored on the remote terminal computing service specified by the OTP. If this method is desired, it will have to be specifically approved by the OTP study coordinator.)

GENERAL REQUIREMENTS

The work will be performed in facilities provided by the contractor at a location that will permit frequent access to the OTP staff and its offices.

SPECIFIC REQUIREMENTS

- A. Development of Computer Models and Computational Aids:
- All computational models are to be as fully parameterized as possible and applicable to a large range of values for the parameter values.
  - Computer programs delivered will be written in a suitable, commonly available programming language. The exact language and version to be used will be agreed to by the contractor and the government during negotiations. The contractor's proposal will include recommendations relative to which language he prefers and the rationale for that recommendation. Any exception to this requirement must be approved in writing by the Contracting Officer.
  - Computer programs will be fully documented to include both verbal descriptions and flow charts prepared in accordance with the ANSI standard. Complete operating instructions on their use, modification, and maintenance will also be provided.

B. In-progress Reviews and Status Reports to OTP

Frequent informal contact with the OTP study coordinator will be required in order to keep him apprised of study progress and the assumptions and approximations that it will be necessary to make during the performance of the study. As a minimum, such meetings will be held at least once every two weeks.

C. Range of Applicability of Results

The study will consider a large range of possible values for the quantitative performance and cost data utilized, and the results presented will be applicable over this range. The basic definition of the range of values to be considered is "from present-day values up to and including those possibly attainable through 1980." It should be noted that the contractor is not required to give an estimate of the probability for the occurrence of any of these values, but only to ensure that his analysis and models are valid to use them.

It is of particular importance that this study not have its scope influenced too greatly by performance factors of the computation, storage, and communications equipment now available or their costs, but rather, that it make reasonable estimates of the possible ranges for the values involved considering both the effects of advancing technology and the effects of increased competition being introduced into all areas. The prime caution is "not to be curtailed too much by what is currently available; consider a broad range of alternatives about what could be made available if there was a demand for it and what its price would be under conditions of medium to intense competition."

D. Justification and Support of Data Utilized in the Study

If a specific system or systems are used as the basis for any of the conclusions presented, the following will serve as a guide for information to be provided about that system in order to permit evaluation of the data submitted.

- System name and identification.
- System sponsor, or sponsors.
- Organization responsible for development of the system.
- System hardware configuration, including
  - Computers

- Peripherals.
- Terminals.
- Interconnection devices.
- Modems, etc.
  
- User groups in the system, including
  - Communities of interest (number and location).
  - Applications to which system is put by each user group.
  
- Specific uses of the system (applications).
  
- Cost of using the system.
  
- Communications employed within the system for each application including
  - Transmission media (dialed phone lines, leased lines, dedicated facilities, etc.).
  - Bit rates and bandwidth requirements.
  - Special quality requirements.
  - Adequacy of present communication mode for desired applications.
  
- Communications usage (indicating proportions of use and rank order of importance to the system), including
  - Data collection.
  - Data distribution.
  - Inquiry processing.
  - Computer load balancing.
  - Computer time-sharing.
  - Message switching.
  - Others.
  
- Volume of business supported by the system in monetary or measurable production terms, including growth of volume resulting from use of the system, actual and projected.
  
- Source references.



DELIVERY SCHEDULE

<u>Item</u>	<u>Weeks after Award of Contract</u>
1. Initial presentation on complete work plan	Not more than 3
2. Delivery of interim-written report on progress and methodology	13
3. Audio-visual presentation summarizing the study results and demonstrating computer programs developed	25
4. Delivery of final written report and complete program descriptions and programs	33

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NAS 5/24

Rec'd

John King

333 Harvard  
Cambridge

EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF TELECOMMUNICATIONS POLICY  
WASHINGTON, D.C. 20504

DeHinger - April 2, 1971

April 2, 1971

Mrs. Ellen Swanson  
Division of Engineering and Applied  
Sciences  
Harvard University  
40 Oxford Street  
Cambridge, Massachusetts 02138

Dear Mrs. Swanson:

In regard to our phone conversation, I want to thank you for your interest in the recruiting effort of the Office of Telecommunications Policy.

As we discussed, this Office is seeking a small number of additions to our staff from a variety of disciplines. I have enclosed a letter from our Deputy Director which you may want to post or otherwise use to inform your students about this Office and the positions which we are seeking to fill. A more detailed description of this Office and its responsibilities is also enclosed for those desiring additional information.

We plan to be at the University on Wednesday, April 14, and I will call you late next week to confirm our interviewing schedule for our visit and to review your interviewing procedures. I look forward to talking with you then.

Sincerely,

Michael J. McCrudden

Enclosures

*Handwritten notes on the right side of the page:*  
I think I will...  
you should...  
to...  
a very...  
please...  
esp. of...  
a copy...

EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF TELECOMMUNICATIONS POLICY  
WASHINGTON, D.C. 20504

OFFICE OF THE DIRECTOR

April 2, 1971

Mrs. Ellen Swanson  
Division of Engineering and  
Applied Sciences  
Harvard University  
40 Oxford Street  
Cambridge, Massachusetts 02138

Dear Mrs. Swanson:

I am writing to you in order to request the assistance of your office in recruiting graduate students to join the staff of the Office of Telecommunications Policy.

This Office is located in the Executive Office of the President and is the executive agency which advises the President on all important matters concerning national and international communications policies. As such, it deals each day with a series of challenging issues which affect the way in which all people communicate with each other. The policies developed by this Office have broad implications for private citizens and corporate entities as well as United States governmental agencies and the governments of other nations.

This Office is relatively new, having been established during 1970. During the past several months, we have concentrated on selecting senior members of our staff. At this time, we are actively considering applications from graduate students interested in employment with this Office.

At present, program policy and project management personnel represent a wide range of skills and disciplines including law, economics, engineering, systems analysis, and public policy planning.

The Office wishes to consider applicants for professional staff positions from outstanding individuals with either a masters or doctoral degree in one of the following areas:

1. Economics, particularly those with capabilities in the areas of regulated industries, econometrics, policy planning, and communications;
2. Political Science, particularly those with capabilities in policy analysis, sociology, and the humanities;
3. Business Administration, particularly those with capabilities in the management sciences (particularly systems analysis and operations research) and marketing. Technical experience and familiarity, as well as experience in broadcasting (or other media), marketing research, and the structure of the communications industry in general would be advantageous.
4. Engineering, particularly those with capabilities in the computer and management sciences, systems engineering and analysis, and communications theory.
5. Communications and Journalism, particularly those with capabilities in analysis of the industry structure, communications theory, sociology, and experience in program production.

All candidates should exhibit outstanding analytical and academic qualifications. The ability to work effectively and to contribute in more than one of the above areas will be considered a significant factor.

Due to the fact that all staff members must qualify for Top Secret clearance, all candidates must possess U. S. citizenship. Individuals interested in applying for positions with the Office of Telecommunications Policy should forward a resume to:

Mr. Michael J. McCrudden  
Office of Telecommunications Policy  
Executive Office of the President  
Washington, D.C. 20504

Starting salaries will range up to approximately \$15,000 commensurate with individual experience and qualifications. A more

detailed description of this Office with its responsibilities and functions is enclosed. Your assistance in bringing the knowledge of our staffing requirements to your students is greatly appreciated, and we look forward to meeting with your students in the near future. I think they will find this Office provides a unique and challenging opportunity to participate actively in the formulation of this Nation's communications policy.

Sincerely,

*George F. Mansur*  
George F. Mansur  
Deputy Director

Enclosure

EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF TELECOMMUNICATIONS POLICY  
WASHINGTON, D.C. 20504

Phone: 202-395-5190

The Office of Telecommunications Policy is the executive agency responsible for overall supervision of national communications matters. Its functions may generally be divided into these four areas:

1. It establishes the Executive Branch's policies and programs pertaining to communications matters and seeks to implement them through various means, including the proposal of legislation. This area of activity includes such matters as structure of the communications industry, communications goals to be sought in international negotiations, desirable policies for established broadcasting and common carrier services, and regulatory approach to new technologies such as satellites, cable television, and interconnected computer systems.
2. It evaluates the performance and coordinates the planning of the communications systems and activities of the Executive Branch. This includes the establishment of policies and standards for Federal communications systems and the review of research and development and testing programs.
3. It is responsible for the management of that portion of the radio spectrum (approximately one-half) used by the Federal Government. In this connection, it allocates frequencies for various purposes among the 19 Federal agency users.
4. It is responsible for planning the mobilization of, and for administering the Nation's communications resources in an emergency, and for exercising the President's war powers in the communications field.

The Director of the Office is appointed by the President with the advice and consent of the Senate. He is the President's principal advisor and the Executive Branch spokesman on communications matters. The Deputy Director is also appointed by the President with the advice and consent of the Senate. Those functions of the Office which pertain to frequency management are under the immediate supervision of the Assistant Director, Frequency Management. Responsibility for other functions is divided among other Assistant Directors, each of whom is designated as Program Manager with respect to one or more fields of activity. Technical support is provided by the Office of Telecommunications of the Department of Commerce.

Advisory bodies which assist the Director in the performance of his functions are the Electromagnetic Radiation Effects Management Advisory Council, composed of experts in radiation and health; the Frequency Management Advisory Council, composed of telecommunications experts from the private sector; and the Interdepartment Radio Advisory Committee, composed of representatives of all Federal agencies which make use of the radio spectrum.

The Office of Telecommunications Policy was created by Reorganization Plan No. 1 of 1970, effective April 20, 1970. Its responsibilities are specified in Executive Order 11556, dated September 4, 1970.



DeHinger - Rename 1

Phil Endors  
Charles Culpeper  
Tom Whitehead  
George Mansur  
Ray Seabro  
Charles Tope

Thompson  
Billig  
Fernbad  
AHO  
Horse

PH

Phil

Tom

George

Thompson

Billig

Fernbad

AHO

Tom Jones  
50

Dettinger - Background Material

BACKGROUND MATERIAL

- (A) Article "Privacy Guards Being Developed"
- (B) A. G. Oettinger letter to C. T. Whitehead,  
dated 1 December 1970
- (C) "Proposed Agenda for NAS Round Table on Computers,  
Communications and Information Handling"
- (D) "Telecommunications Reorganization", The White House  
with attachment "Reorganization Plan No. 1 of 1970"

# Privacy guards being developed

WH  
from  
JB

By **KEN ROMAIN**  
Globe and Mail Reporter

**VANCOUVER** — Communications Minister Eric Kierans said yesterday his department is working on the development of safeguards to protect the right of privacy of the individual in the proliferating data-processing information systems being developed by business.

Credit and financial institutions all over the continent are creating information and communications systems based on storage information designed to improve their competitive positions, he told

the Vancouver Board of Trade.

And while advantages are being given to businesses through the efficiencies of computers and communications, there are few protections for the individual victims of mistakes in the system or invasions of individual privacy. It is up to Government to protect the public interest.

He predicts that Canadian business will be spending billions of dollars on these systems by the Nineteen Eighties and that it will become the third largest industry in Canada.

Mr. Kierans says proposed communication systems would give Canadian householders and business something approaching total communication within 10 or 15 years.

He described this communication capacity as the wired city, which would involve merging paired wire, coaxial cable and the data processing technology of the computer.

These systems will free many human activities from the constraints of time and place. "If it is possible to receive computer-assisted instruction, banking services, professional services, consumer information or entertainment at any point in the system, then many of our social and economic activities and habits could be revolutionized."

More people, men and women, could contribute to the economy from their

homes, education and the dissemination of useful or desirable information could be more widespread, industry, finance, and commerce could be rationalized and possibly freed from the damaging cyclical movements of the market economy.

However, Mr. Kierans warned that the danger does not lie in this development taking place but that it will be developed piecemeal, to serve particular interests, and without sufficient regard to the damage done to society as a whole.

Already there are some disturbing trends. With present information and communication systems there is little consideration given to the possibility that these services are being duplicated elsewhere. There seems to be little interest in building systems that could be integrated with others at a future date.

In addition, computers should be designed for the use of people. If businessmen can cut down on labor by using computers then perhaps computers should also be used to train people for new activities.

"Despite all the good things that can be said about telecommunications in Canada, and despite the fact they are relatively unchallengeable in the world, there is still a convincing case to be made for purposeful Government involvement in the public interest and in response to social priorities."

The Department recently proposed the creation of a task force to investigate the arrangements needed to develop computer-communications systems in the public interest.

A wide-ranging investigation of Canada's communications resources and the laws regulating them is nearing completion. It was launched after the formation of the department with government and industry taking part. Known as Telecommission, its report will soon be written and this will be followed by a communications white paper.

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DEC 14 Rec'd

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H. C. House  
J. R. Pierce

DEC 3 4:00 PM RECD

NATIONAL ACADEMY OF SCIENCES  
2101 CONSTITUTION AVENUE  
WASHINGTON, D. C. 20418

1 December 1970

ANTHONY G. OETTINGER, CHAIRMAN  
COMPUTER SCIENCE & ENGINEERING BOARD  
AIKEN COMPUTATION LABORATORY  
HARVARD UNIVERSITY  
CAMBRIDGE, MASSACHUSETTS 02138

7th + F  
Wishes  
SEP  
400  
Blod

Dr. Clay T. Whitehead  
Office of Telecommunications Policy  
Executive Office Building  
Washington, D. C.

Dear Tom,

The following are areas we suggest for the two small exploratory meetings we discussed on October 23. We are prepared to work with you to develop this rough list and yours into informal agendas, so we may then pick appropriate participants and set the dates.

1. What are the critical policy aspects of the impact of computers and communications (methods of information collection, processing, transmission, storage and access) on the structure and function of institutions and on the plans and programs that affect them?

- centralization vs. decentralization
- functional vs. hierarchical organization
- command and control - variable delegation of authority and responsibility
- cross-institutional links: sharing of files, functions, etc; formal interfaces
- effectiveness of function
- costs

2a. What institutions should receive priority attention?

- e.g. Public - Private
- Civilian - Military - mixed

2b. By what cut?

- i. type of organization?
- ii. type of functions? (air traffic control, library system, intelligence, medical records and delivery of medical care, weather prediction and control, etc.)

2c. At what level?

- e.g. tactical, theater, or strategic in military

1 Dec 1970

3. How do we assess current and projected capabilities to find out:

- a. What are the outer limits of our current technological capability? Where are the most effective and innovative practices to be found?
- b. What are the outer limits of practical and theoretical knowledge of organizational patterns and of their effectiveness?
- c. What significant gaps are there in the technology? What are priority R&D goals? possibilities?
- d. What are now or should be appropriate and timely experimental settings? What can we learn from U.S. experience? Foreign experience? How transferable?

4. What needs to be known about what alternative types of computer/-communications configurations are technically possible based on (3)? practically realizable? More or less conducive to which alternatives under (1)? Leading to greater or lesser compatibility, integration and interoperability, better standby and preemption capabilities?

- Extreme examples:

- a. totally independent nets for each function
- b. single net with ad hoc subnets (switched or dedicated)


- In all cases: questions of network control, data formatting, error control, message switching, etc;

5. What type of planning and forecasting information is most needed to illuminate policy goals?

- e.g., current assessments and projections of capacity, reliability, speed of transmission and switching, speed of computing and storage access, mix of transmission methods, volume and character of data loads, privacy expectations, security techniques, cost distribution, etc.

Since Warren House is in Washington (961-1834, or a 5-minute walk), he is the logical contact in the first instance, but I'm also readily at your disposal by phone (office: 617-868-6155; home: 617-484-0886). We look forward to hearing from you.

Sincerely yours,

  
Anthony G. Oettinger

AGO:chm

cc: E. E. David, Jr.

WCH/1aa  
18 January 1971  
(CCJoyce:hmy --1/5/7)

PROPOSED AGENDA FOR NAS ROUND TABLE ON  
COMPUTERS, COMMUNICATIONS AND INFORMATION HANDLING

I. General Session

Objective:

What is the potential for widespread application of information handling technology, what are the possible consequences, and how can national policy foster desired results?

1. An assessment of the status of information handling technology.

Has information handling technology reached the point at which it becomes economically feasible to use electrical media rather than the physical movement of paper to manage a wide range of governmental and private functions? If not, what are the limiting factors? To what types of functions is the technology most applicable? What does the future hold?

2. What benefits and what adverse consequences are to be expected, or sought, from the wider application of information handling technology?

- In government
- In business
- In private life

Impact on institutions, attitudes.

3. What aspects of information handling provide suitable vehicles for exerting policy control over the direction and rate of progress in applying this technology?

Possible policy handles?

- Government organization
- Organization of the industry supplying these services (competition, monopoly, concentration, etc.)
- Standards
- R&D
- Federal funding of applications
- Privacy constraints

4. What types of research can provide better answers to the above questions?
5. Is the Federal Government suitably organized to cope with these problems? If not, what changes are needed?

## II. Intelligence Information Handling

1. Brief history of efforts to modernize information handling in the intelligence community.
2. What are the technology resources in unclassified areas of the government and private sectors relating to an evaluation of computer-communication developments and policy options for the nation?
3. What are the rates, directions, and potentials of these technology concepts under existing pressures and priorities? What re-direction options and priority changes are available?
4. What are the difficulties in transferring the experience and technologies to non-classified areas? What times and institutional relations are involved?
5. What are the potential gains for such transfers? Savings in time, money, manpower, etc.?
6. What techniques appear to be most promising for accomplishing such technology transfers?
7. What kind of role can such technology transfers play in the formulation of an effective national policy for the development of future computer and communication capabilities for the nation?

DeHogge - January 11, 1971

1/19/71

Eye - Oates Panel - Great!  
Their reaction to propositions  
of Acad. [5<sup>th</sup> sheet of policy  
W. H. S. C. C.]

Just what needs to be said - Ed glad to  
Idea of Acad is to cultivate get in  
human resources, not paper streamlines  
pushers - form -

Board needs exceptional fluidity + options

{ Environmental one has [writing -]  
- paid -  
+ Tamara Bay

re Weston: Rather found on it now than  
later

Intending to find out Whitehead's  
attitude toward DCA which  
have messed up community -  
Community has primitive working  
version of search



29 December 1970

Oettinger - December 29, 1970

① ARPA  
② Oct's stuff

JAN 11 1971  
FBI

Item #1

Response to Tony's letter with information for you to take care of and with a copy to John Griffith.

Dear Tony:

① It is a good thing that somebody recaps these days.

In regard to item 1 I recall generally the conversation we had about congressional problems, but I do not remember anything very specific. I also recall that I had some vague misgivings on this congressional point. I guess all I can say now is that I think we ought to move very, very carefully on this one.

② A call to Don Ling on another matter indicated that he was going to be out of the office until January 6, 1971. I have asked Barbara to make sure that I call Don regarding this letter the first day he is back.

③ Check. All signals go. Barbara would you please package up in a proposal file a copy of Strassburg's letter of Sept. 18 plus a copy of John Pierce's letter of October 6 and Tony's letter of October 14. Tony, as I recall, we indicated to Bernie that we would get something to him during the first week of '71.

Pierce  
re  
21st

④ I have put a call in to Phil Enslow and will work this through. I have talked to John generally about our conversations with Phil Enslow, Charlie Joyce, Walt Hinchman and Tom Whitehead.

Tony, I came out of this seminar with incomplete recall, without a doubt. However, I did come away thinking we had a very clean-cut set of guidelines for us to use in selecting the people for the 21st discussions both in the morning and in the afternoon. These guidelines from Tom, who was trying to set up his own thinking in response to our questions, came out something as follows (1) he would like an analysis and a projection of what directions the current technology was going and how fast and where they would proceed given no action by his office for guidance or control (2) he would like an examination of what certain kinds of policy decisions by his office would do to the directions of this technology, its rate and pace and forward progress within a time comparable to that projected for ~~A~~. This gave me at the time some reservation about blanketing in the executive committee in either the morning or in the afternoon or both sessions strictly on the basis of their being a member of the executive committee. It leads me to suspect that probably the criteria for selecting people to come to this meeting should derive from the two main streams of events outlined above. As I recall Whitehead's remarks regarding the government and the private sectors, he indicated that he viewed the government in two lights, first, as a large operational computer telecommunications complex for which he had direct responsibility for providing policy guidance, and second, as a large operational complex which could depending upon the policies guidance given it, have significant and constructive repercussions on technological developments in the public sector. As I recall Tom's dealing with the public sector, as such, he was very, very delicate about this and very, very tentative about grappling with this directly as this point in ~~his~~ his thinking.

Tom

mer thought and then we can pick this up on a telecon. We should remember basic strategic role that Whitehead's staff is supposed to play in the distribution of policy and technological leadership power in the U. S. Governemtn complex. We should talk further about this one.

Barbara, please extract these three items and put them in a folder for our next visit with Dr. Handler.

DEC 24 RECD  
GFR 9:00

NATIONAL ACADEMY OF SCIENCES

2101 CONSTITUTION AVENUE  
WASHINGTON, D. C., 20418

22 December 1970

S. OETTINGER, CHAIRMAN  
COMPUTER SCIENCE & ENGINEERING BOARD  
COMPUTATION LABORATORY  
HARVARD UNIVERSITY  
CAMBRIDGE, MASSACHUSETTS 02138

Oettinger - December 22, 1970

TO: W. C. House  
J. Griffith

Dear Warren and John,

When I returned home on the evening of Monday, December 21, I phoned John Griffith to give him an up-date on the highlights of the Oates Panel and ARPA negotiations. Here is a recap of remaining impressions or action items that I want to be sure to set down on paper before they slip my mind.

1. In the course of one of my several conversations with him, Bill indicated that he thought the idea of thinking about congressional problems in the manner we discussed the other day was a very good idea. That's one to move through the Executive Committee to the Board!

2. When Ling has drafted his letter to the manufacturers inviting them to participate in his Japan study, Warren will check it out with Voorhees and Philips, then get it ready for my signature.

3. We owe Bernie Strassburg a proposal responsive to his letter of September 18. The authority for it is in John Pierce's letter of October 6 and my letter of October 14 to Phil Handler referring to the agreements we made in his office on Monday, October 12. We should proceed in that spirit.

4. We are committed to meeting with Whitehead and company on Thursday, January 21, with an open meeting in the morning and the classified one with compartments in the afternoon. Warren is to check out security arrangements with Phil Enslow.

I would appreciate it if you two could think about which members of the Executive Committee should be present at morning or afternoon and which additional people should be rung in for either session. It might be well first for the two of you to have a quiet phone conversation about this, so Warren may tell John what happened. I did not have time either to tell John or to reflect on it myself. Whitehead seemed quite serious about the "tutorial" need and about the need to keep both government and public telecommunications problems in mind. Clearly Billiq should be in on the morning and, if he has the right tickets, on the afternoon. But who else?

5. The following questions never got taken up at our meeting with Handler!:

a. The Ling project cost center question.

Think John should not be there in a.m. session or "public" or "commercial" but he must be there for p.m. with night clinic that but with Enslow.

b. Westin's New York Times publication question.

c. My proposals for new members (Billig, O'Keefe, Campaigne).

That's all for another day!

Since Claire will also be on vacation while I'm gone, there will be no point in contacting my office. Let us use Warren's as the central communication point. I will let him know as soon as I'm settled about addresses, phone numbers and the like, for use in an emergency. As you know, so far as Oates Panel emergencies are concerned, W. O. Baker is "standing in" for me, which makes him acting chief-of-staff to Oates! Can this be explained to anyone with any degree of sanity?

I better knock off before I lose mine! Happy Holidays!

Sincerely yours,

A handwritten signature in cursive script, appearing to read 'AGO', with a flourish underneath.

Anthony G. Oettinger

AGO:chm

NATIONAL ACADEMY OF SCIENCES

Computer Science and  
Engineering Board

7 January 1971

Dear Tony, John --

Could we have a telecon for initial reaction which I have promised to get back to Enslow/Joyce. They are entirely willing to discuss all items. My initial reaction to II is to use that IC as a special case to draw experience and background useful to general policy development rather than an action item.

Warren....

*Dettinger - January 7, 1971*

Executive Support Staff, Room 536, Joseph Henry Building, Washington, D. C.  
Phone (202) 961-1386

- 1
- industry supply
- services (competition, monopoly etc.)
- Standards
- R&D
- Federal funding of applications
- Privacy constraints

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Proposed Agenda for NAS Seminar on

Information Handling

I. General Session

Objective:

What is the potential for widespread application of information handling technology, what are the possible consequences, and how can national policy foster desired results?

1. An assessment of the status of information handling technology.
  2. Has information handling technology reached the point at which it becomes economically feasible to use electrical media rather than the physical movement of paper to manage a wide range of governmental and private functions? If not, what are the limiting factors? To what types of functions is the technology most applicable? What does the future hold?
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- R&D
- Federal funding of applications
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4. What types of research can provide better answers to the above questions?
5. Is the Federal Government suitably organized to cope with these problems? If not, what changes are needed?

## II. Intelligence Information Handling

1. Brief history of efforts to modernize information handling in the intelligence community.
2. What are the functional areas in which a wider application of modern information handling could be made? What do we know about benefits, costs?
3. What impact could information handling have on the overall performance of the intelligence community? What institutional changes are necessary, or desirable, to achieve these improvements?
4. How should the information handling program within the intelligence community be managed?
5. What policy guidance could be provided to the intelligence community to achieve the desired results?

J. Griffith  
W. C. House  
J. R. Pierce

NATIONAL ACADEMY OF SCIENCES  
2101 CONSTITUTION AVENUE  
WASHINGTON, D. C., 20418

5/24

1 December 1970

ANTHONY G. OETTINGER, CHAIRMAN  
COMPUTER SCIENCE & ENGINEERING BOARD  
AIKEN COMPUTATION LABORATORY  
HARVARD UNIVERSITY  
CAMBRIDGE, MASSACHUSETTS 02138

Dr. Clay T. Whitehead  
Office of Telecommunications Policy  
Executive Office Building  
Washington, D. C.

Oettinger - December 1, 1970

Dear Tom,

The following are areas we suggest for the two small exploratory meetings we discussed on October 23. We are prepared to work with you to develop this rough list and yours into informal agendas, so we may then pick appropriate participants and set the dates.

1. What are the critical policy aspects of the impact of computers and communications (methods of information collection, processing, transmission, storage and access) on the structure and function of institutions and on the plans and programs that affect them?

- centralization vs. decentralization
- functional vs. hierarchical organization
- command and control - variable delegation of authority and responsibility
- cross-institutional links: sharing of files, functions, etc; formal interfaces
- effectiveness of function
- costs

2a. What institutions should receive priority attention?

- e.g. Public - Private
- Civilian - Military - mixed

2b. By what cut?

- i. type of organization?
- ii. type of functions? (air traffic control, library system, intelligence, medical records and delivery of medical care, weather prediction and control, etc.)

2c. At what level?

- e.g. tactical, theater, or strategic in military



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- a. What are the outer limits of our current technological capability? Where are the most effective and innovative practices to be found?
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- Extreme examples:

- a. totally independent nets for each function
- b. single net with ad hoc subnets (switched or dedicated)

- In all cases: questions of network control, data formatting, error control, message switching, etc;

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e.g., current assessments and projections of capacity, reliability, speed of transmission and switching, speed of computing and storage access, mix of transmission methods, volume and character of data loads, privacy expectations, security techniques, cost distribution, etc.

Since Warren House is in Washington (961-1834, or a 5-minute walk), he is the logical contact in the first instance, but I'm also readily at your disposal by phone (office: 617-868-6155; home: 617-484-0886). We look forward to hearing from you.

Sincerely yours,



Anthony G. Gettinger

AGO:shm

cc: E. E. David, Jr.

NATIONAL ACADEMY OF SCIENCES

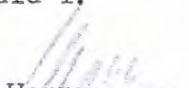
Computer Science and  
Engineering Board

8 December 1970

Dear Tony and John:

Attached is a copy of the paper which Charlie Joyce said he and the staff had put together as possible guidelines to organizing the seminars on computers and communications that we recently talked about with Tom Whitehead. I think we have the option of setting our own schedule judging from what Charlie said today. However, I would suggest that we move this one right along.

Please note that Charlie did not mention your letter to Tom Whitehead and neither did I.

  
Warren....

WCH/bla  
Attachment

WCH: My Whitehead  
Appointment?

Executive Support Staff, Room 536, Joseph Henry Building, Washington, D. C.  
Phone (202) 961-1386

DeHayer - December 8, 1970

Questions on Computers and Communications

Computers may be utilized in the following configurations:

Stand-alone

On-Line with remote I/O devices

Networks of computers and I/O devices (both fixed and switched networks) (e.g. ARPA Net)

Considering the future distribution for the sizes of computers, the <sup>and high costs</sup> problems encountered in the design of complex systems, and the interactions with the communications available:

- . What are realistic estimates for the future proportion of each configuration?
- . What demands will these systems place on the communications system?
  - .. Bit rates
  - .. Error Rates and error control
  - .. *Code conversion*
  - .. Switched network connection times
  - .. *Automatic dial-up and answer capabilities*
  - .. What technical alternatives are there available for the widespread <sup>local</sup> distribution of the new services being envisioned?
  - .. What will be nature of the network required:
    - ... Analog
    - ... Digital
    - ... Mixed

What might be the socio-economic impact of communications either aid<sup>ing</sup>~~ed~~ or hindering the development and implementation of these systems?

What are the technical problems involved in the privacy issue and how can they be overcome?

- . External to the data processing hardware
- . Internal to the hardware system.

What standards for communications systems are required to control the present and possible future problems involved with:

- . Free interconnection to the common carriers
- . Trunk interconnection with the systems proposed by the specialized carriers.

What are the technical means available (other than black-boxing) to overcome the operational incompatibilities which arise from competitive forces in the computer manufacturing field and the present lack of the standards mentioned above?

Oettinger - December 22, 1970

S/24

22 December 1970

Mr. Lewis Billig  
Technical Director  
Communications  
The MITRE Corporation  
Bedford, Mass. 01730

Dear Lew,

We have arranged for a meeting with Tom Whitehead on Thursday, January 21. I trust you can attend! Details will follow. Happy Holidays.

Sincerely yours,

  
Anthony G. Oettinger

AGO:chm

cc: W. C. House

blcc: J. Griffith

DeHinger - November 3, 1970

3 November 1970

NAS 5/24  
OTP

Assumes Expanding Need for Telecommunications Capacity without regard to Population Growth.

Public Telecommunications Policy Considerations

--Capacity-current and future of carriers

--Quality

-common carrier

-data nets

--Speed

-Transmission

-Switching

--Transmission Methods

-Wires

-Micro Waves

-Satellites

*innovative*

*Interfac  
Compatibility  
Security  
Reliability*

--Costs of system

-Interim

-mid-term

-longer-term

*3/4* --R&D for systems technologies

-Location of

-direction of

-goals of

*3/4* --Computer Technologies

-near-

-mid-

-longer-term

--Estimated Data Loads

-near-

(Check Harry's letter re: Perlis for areas of requirements)

-mid-

-longer-term

--Character of data loads

-voice, data, visi-data

-local-local

-local-distant

-distant-distant

--Existing Technology/Capabilities Survey

-U.S. Govt.

-U.S. Industry

-U.S. Research Labs

-Overseas

--Character of Interface functions & Computer applications

-single point origins of input

-collection, reduction and <sup>put</sup> ~~bug~~ (?) transmission

-user-carrier interface, <sup>band</sup> systems-satellite interface, etc.

Q.1 What are other nations doing regarding data, etc. handling on public carriers?

Private carriers?

-Capacity

-Speed

-Quality

-Separate Data Nets

-Satellite Interface

49/b --Telecommunications Policy & Secure Facility

- CS&E Function
- Policy Implications
- Experimental/on hands insights

--Telecommunications System Integrity

- Privacy Aspects
- Technical Security Aspects
- Safeguards for break
- Legal responsibilities Aspects ala Detroit and auto safety

--U.S. National Security

- <sup>Reliability</sup>~~Publicity~~ of carrier telecom.
- Standby capacities for peaceful emergency
- Standby capabilities for war emergency
- Pre-emp Priorities
- Cross-over/Isolated Carrier Capabilities

2) --Integrated Data Handling Systems Elements

- Private Carrier
- Common Carrier
- Satellites
- TV-Cable

3) Transfer of Existing-Forward Thrust Telecom. Technologies

- NSA
- CIA
- FBIS



--Impact of Tele-Com. Computer on Organizations

*flow chart*

Non-Military

- General - Org. by Org.
- National
- Industrial
- Other

--Operational

Military

- Tactical
  - Theatre
  - Strategic
- Action Levels

Military

- Ops
  - Tact.
  - Theatre
  - Strategic
- Planning Options

--TeleCom. Systems Functional Slice

-Option 1--

--National levels, special purpose segments

- i.e. library info. handling system,
- medical clinical/diagnostic net,
- airplane control nets,
- national corporate nets,
- commercial service bureau nets

*Physical* ○ *separate*

*vs Carved out of Common*

*Option 2*

vs.

--National, Integrated, multi-level system in relation

to National Telecom. capabilities, flexibilities as  
 influenced by nature of management options, nature  
 of interfaces, transfer and substitutability.

Billig Comments of letter

DeHruyer - Rename 2

page 1, Section 1 paragraph 1

after affectiveness of function insert levels of integration of  
computer/communication i.e., net control, data format, air control,  
message switching

page 2, paragraph 4, line 4

after compatability insert integration

page 2 paragraph 5

before etc. add cause distribution

Tony,

These are comments on the Whitehead letter. Mr. Billig dictated them to Trylla while I was at lunch. His comments on Mr. House were put in the mail this morning (Wednesday) and you should have them by Friday.

Claire.

Dettinger - Rename 3

NAS 5/24

TONY

JOHN G.

Vic Evans, who worked with the FCC Panel most enthusiastically and energetically, called this a.m. to say that things had been moving and that he wanted to drop this off for our initial comment, if we wished.

He added that there seems to be a certainty that the Office will have a role, though this is not spelled out at the moment; that money will be available in unknown amounts and at an unspecified time in the future; that in a general sense the role of the Office would probably be to serve as a catalytic agent for the many parties-at-interest in this telecommunications field.

Please note the familiar name of the addressee in GAO. There was also some mention of re-alignment of the Brooks bill.

Warren.....

Dettmger - Rename 4

NAS 5/24

- ① Cates → David
- ② Meet David soon
- ③ Give Tom paper on probs etc.  
for small mtg with his staff
- ④ OK on FCC joint <sup>a) open</sup> <sup>b) clear</sup> (Clean  
relation with Burdy)

Deputy: George Mann

Bill Morill ↔ O/BM red interest Nat'l Sec

⑤ Jeff Seeger for Wickheaf

Public Interest

Technical  
Evaluators

Help devise plan  
plans + cost  
Integrative team

NAS  
5/29

1)

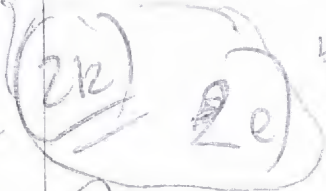
Computers in diff't orgs + diff't plans -

a) talk to each other tech -

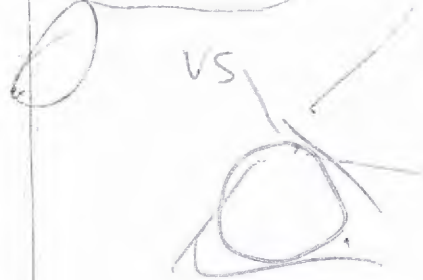
b) Org impact { Link for  
Non-link against

Vague  
+ plans  
Risky

Sc  
2b



2)



DeHogge - Penance 5

3)

Existing Tech - Non Tech  
Org Union  
∴ extrop R + D

4)

Lab: Library + Info Net?

(Everyone has)

~~but in~~ US

What do  
first.

Specific -

{ Existing  
experience }

Secure Faculty

a) Exp

b) Available to us

4a Other we

Policy maker -

7)  $\mu - r$  ↓

4a) Other we

a) Exp  
b)  $\mu - r$  to us  
they were -

5) Tech 6's  
which others collect

we evaluate & relate to impact  
on major  $\mu - r$

