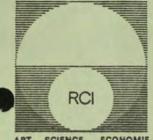
August 1, 1975 Dr. Joseph F. Coates Congress of the United States Office of Technology Assessment 119 D St. N.E., Room 721 Washington, D.C. 20510 Dear Joe: Thank you for your kind remarks about POSTS and for the reprints you sent to me. I have read them with interest and admiration. I will have to read Bell's book after reading your article. I'd somehow not gotten around to doing so. I'm enclosing a copy of some recent U.S. Senate testimony given before Senator Tunney's subcommittee on constitutional rights. A NBC Evening News story had caused them to be held. Most of the rebuttel (the story was very badly done) came from DOD (David Cooke), but I was asked to discuss the technical aspects of the story and then to speak to the issue of computers and surveillance in general. Naturally, I talked about EFTS. In response to your request for POSTS publications, most of those you asked for are enclosed. The exceptions are #9 and #27 -- (I'm returning your list of requests), which are not yet available. When they are, I'll send them along. Presentations are usually no more than that; that is, no written version exists. The exception is that we do have an abstract of Lederberg's talk on, "Do Scientists Understand Science?" Also enclosed is a preprint of a paper of his on "DNA Research: Uncertain Peril and Certain Promise," which is to appear in PRISM. I think it is an outstanding and important paper and one which raises important policy issues. If you agree, would you share it with Daddario? I've been corresponding with Senator Percy (at his request) recently about the possibilities of amending Amendment #495 to S. 495 so as to include computer wiretapping and bugging. Are you interested in seeing copies of that correspondence? If so, please holler. Best regards, Paul Armer Fellow. PA:g



SCIENCE ECONOMIE

RENCONTRES CRÉATIVES INTERNATIONALES

20, ch. COLLADON 1211 GENEVE 28, June 1975 SWITZERLAND Cable: FUTUROLOGY-GENEVE



Dear ICC Friend,

We have pleasure in sending you herewith the latest issue of our review FUTUROLOGY.

Many congratulations are proof that we have achieved our original objectives :

- the clarification of many views concerning the future,

- the provision of a medium of expression for the most authoritative opinions,

- the submission of new ideas for critical appraisal by specialists involved in the most up-to-date methods of research and development,

- the provision of a Synthesis leading to a better understanding of the future.

We should be happy to establish regular contact with your Organization as we are convinced that we are animated by a similar aim.

Since 1943 we have been in touch with top personalities engrossed with the challenge of the FUTURE in our era of vast changes. The ICC and "FUTUROLOGY" are open to all types of exchange. In view of this, we are offering you, free, our review "FUTUROLOGY".

We are hopeful that, on the other hand, we shall be able to benefit from a regular receipt of your valuable Publication and Programmes, which could be made available in our ICC Centres : Geneva, the Alps and the Italian Coast.

We can, thereby, come to a reciprocal understanding to reprint and publish certain of our mutual articles, with mention of their source.

Would you please return to us the Reply-voucher given below.

Cordially yours,

Dali SCHINDLER, M.D., President.

YES	NO	I agree to an exchange of our reviews.
YES	NO	I agree to reprint and publish certain articles from "FUTUROLOGY" and, in reciprocity, authorize you to reprint and publish ours. The origin of the article will of course be mentioned.
YES	NO	I agree to establish contacts and to participate in the Meetings and Receptions at your ICC Centres, commesurate with my availability.
YES	NO	I agree to an exchange of our respective Lists of Members.
NAME.		CENTER FOR Advanced FIRST NAME PAUL CENTER FOR Advanced Sciences Science Technology A ION STUDY IN THE BEHAVIORAL SCIENCES SOCIETY
ORGAN	IZAT	ION STUDY IN THE BEHAVIORAL SCIENCES SCIENCE, TECHNORY TO

ADDRESS 202 JUNIPERO SERRA Blud TOWN STAN FORD, CA. POSTAL CODE. TEL: 415 - \$ 321- 2052 DATE ! A 49 1975 SIGNATURE . Da

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

202 Junipero Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

July 31, 1975

Mr. Robert L. Patrick 9935 Donna Northridge, Ca. 91324

Dear Bob:

Thanks so much for the effort you put into your lengthy letter of July 24. I'm sending copies to my ICCP cohorts. Your letter should force us to think harder about the alternatives. After we do, we'll be back in touch.

You mention in your letter some work you did for Hughes. How much trouble would it be to get Hughes to release a copy of the notebook, which resulted from your work, to ICCP? You also mention a work plan (including an example of output therefrom) which you presented to Ray Berger. Would that be a reasonable input to the ICCP effort? If so, can you send me a copy?

I've always valued your criticisms of my thinking, so if you have any comments on the enclosed testimony I recently presented in the U. S. Senate, I'd appreciate hearing them.

Once again, thank you for your thoughtful and incisive comments.

Please give my love to Corrine.

Best personal regards,

Paul Armer

PA:g Enc.

cc: Fred H. Harris Ralph Van Dusseldorp

July 31, 1975 TO: Anthony Ralston, George Glaser, William Atchison FROM: Paul Armer SUBJECT: Den McCrecken I would like to recommend to you the nomination of Den McCrecken for ACM Precident. I needn't extell to you his professional qualifications, but I would like to discuss his leadership and managerial qualifications. T have known Dan for twenty years or so. I have worked closely with him in the Computer Professionals Against the AEM' organization and more recently in the ACM Committee on Commuters and Public Pelicy. In the former, he was Cheirman, and I was a member of its three-man Executive Committee (four, including Dan). In the latter, he is Chairman and I'm Vice-Chairman. In both instances he was a crestive leader who devoted a lot of energy to the effort and exhibited outstanding "people skills" in getting volunteers to work together. I think this is a very important trait for an ACM President. He does an excellent job of chairing a meeting, walking the line between not stepping on people's toes or egos and keeping the meeting on the track. In addition to his ACM experience, Den was a member of, and President of, the Ossining School Board. He's a most responsible individual. When he agrees to do something, he does it. Though becoming ACM President would mean he would have to forego some writing and consulting income, he is willing to do so. He's not impoverished, so he can afford it. All in all, I think he'd make an outstanding President. PA:

July 31, 1975 THE LUNG REPORT OF THE PARTY Dr. Judy A. Townley Harvard University Genter for Research in Computing Technology Aiken Computation Laboratory Combridge, Mr. 02138 Dear Dr. Townley: Thank you for your letter of July 24 concerning your new Masters in Information Sciences program. The brochure about the program promised in your letter was not enclosed, so I feel a bit at a loss in responding. Would you send me one? In your letter you suggest that you would like to have individuals like myself visit Hervard to discuss a computer-based application or problem. My interests these days are in the social implications of computers. If you are interested in my giving a seminar or two, or three, in that ares, I would be willing to do so if we could work out suitable errangements. I have in mind copier like: Obsolescence Electronic Funds Transfer Systems Computers and Privacy Computers and Employment To give you a flavor of what I have in mind, I'm enclosing reprints of several papers of mine and also a resume. Professors Octtinger, McKenney and Cheatham all know me well. Sincerely yours, Paul Armer PA:g House 1/79 ACM Problem Fit 9/74 Senate 6/75 Enco.

Deal Nancy up" (I had the morted up version retyped) version of your magnum opus into the mail to Jarry Welke. I'm sorry for the elopsed time since you sent it to me. I got involved with testifying in the H.S. Senate (copy enclosed) for John Tunney and that resulted in some lengthy correspondence with Senator Percy.

So & was busy. I sent Jarry a copy of the material as you sent it and be phoned to ask would I efford on the portion having to do with technological obsolescence. So joill note that I did Enclosed up. Having done that my editorial assistant & I decided to Searcher things a little of then made another editorial pass. I hope you don't feel we did violence to your words. your letter seemed to invite my doing whatever I wished with it. (My ed. asst. thought you were much more libral-minded in that regard than she would ever be with something she had written!) and the readering I had trouble finding a place for the IBM related material, so I decided to leave it out since torry had emphasized people related "in his phone call and it wasn't as people related as the real of the material. Please reasons we that your not unhappy with what you did, although it made me feel more I was happy with what you did, although it made me feel more

than a little vancomfortable because of your glowing account of by exploits. And Jarry seemed exceedingly pleased when I talked with him on the phone. Hid seen only your version - not my revision at the time. Incidently, I agree that Lawy's new magazine is a much more appropriate place for the piece that them IHdy's OR ERIK'S books bil you ever get your money from Judy?

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din jealous of your forth-coming trip to Corfu via Paris & Florence. I'm now watching Sir Arthur in "twiligation" of the fifthe time on educational TV. Illnever forget the scene in which the camera is on David but the are absolutely no visual cues as to scale. You hear his voice & their he walks out from behind the pedestal. The realization of the immensity of the statue hits you like a slap in the face. Great showmanship. So tell David hello for me, eat a few lives sluvaki for me (I wish my neighborhood offered them - I some times seriously thinks about opening a stand just so I could have access to them) and out enjoy yourself. If you see Bob & fanet in Paris, please give them my very very best. Dave I. Said that Bob had based then Boston recently on an ITT assignment. Bol is one of my favorite human beings. Wish I could make 51COB - and ERNA'S restawant - and Chez Foy. Since neither of us seems enthusiastic about the jellied eal, I Suggest we let it drop (would slither be a better word!) from our grand plane - the are always good dudien restawants in London. Tellme more about ROSA'S Seruffy little two porlor on Sepulveda (you follow that with [PCH?) - what does that mean?) right before you get to Redondo" So that I can find it when next I am in L.A. Sorry to make you have sick by builting it up.

on Electronic Funda Transfel Systems. The legislation authorizing it was passed last October by but Food & the Senate have been fighting passed last October by but Food & the Senate have been fighting and over the chairmanship. Runor says they've now agreed

but the candidate is in the hospital having cataracts removed from his eyes. Having just had a Cabinet member on the hospital Food apposently wants to wait the member of the hospital before making the multiple gets out of the hospital before making the announcement. It worsies me that none of my neighbors report any visits by the FBI checking up on me. I worry a bit about the FBI cheek. Since leaving RAND I was a member of the organizing committee for the Computer Professionals Against the ABM" and tongled with the FBI over Dan Ellsberg. I d had worked with Dan at Rand, had had Tony Russis automobile while he was in Vietnam, Joan had dated Don for many months back in the mid-sixther and we lived only a couple of blocks away from Dan in Combridge at the time the Rentagon Papers were released to the N.Y. Times. To further complicate things, found of were in Janaica when Dan went underground and the FBI couldn't find us. They were convinced, when we returned, that we had been involved in the distribution of the papers. But also, we were innocent. So my file since 1969 is a bit anti- establishment. We shall see. If I get appointed, it will involve spending a couple of days a month in Washington. I need help with the English language. Enclosed is on all from Computer Weelsly. What do they mean by Thanks again for your efforts to publicize Faul Amer. I sure hope you get to the editorial board meeting. No matter which continut we have our Herian meal-what yether is that it Blessings & love Nancy Foy
DRUID COMPUTER LIMITED
8 PELLERIN ROAD, LONDON, N.16

23 July

Telephone: 01-249 1177

Paul - did gon never receive my magnem opus? Or did gon dislibit? Shelt embrossed when your fine Posts report embrossed when your fine Posts report alrived to have short-shifted it. Abell alrived to have short-shifted it. of I shall I arrend? (con & - is there time - etc.)

plessings

2

VAT Number 239-8134-42 Director; Nancy Foy (U.S.A.)

Registered Office: 100 Chalk Farm Road London NW1

Registration No. 973642

Nancy Foy DRUID COMPUTER LIMITED 8 PELLERIN ROAD, LONDON, N.16

Telephone: 01-249 1177

10 June (Johnny's 16th...he's going to enter the Evel Kneivel set by buying himself a Moped with all his loot)

Paul dear --

what a lovely set of coincidences! Last time I wrote you was a Saturday morning I think, in the clutter of moving, but with considerable enthusiasm (having just tucked away all sorts of lovely Armer material "I must get to, someday soon" into an even more accessible corner of my new office). Then the phone rang and it was the good Larry Welke (only man I know who ever made money at publishing), and we had a chipper evening at the local, which like all other east end pubs is the kind of place where people dress up on saturday nights (beehive hairdos with spray, and deep decollegage on the ladies -- average age 56) and the landlord sings schmaltzy songs. Larry's ulterior motive: to get me to write for his new, glossy, coffee-table type computer journal. I don't think it's likely to conflict with DTN, but I haven't consulted DTM on the subject (Larry is usually a good 'friend of the firm', and he and Angie and I had a great time in Paris for the last SICOB -- but I still have reservations until I see the thing -- aimed at 110,000 business managers who know they need to know more about software -- an idea that puts it right along the lines of your 'technological obsolescence', doesn't it?)

Where was I, besides sipping best-bitter? Ah...the good Welke, it turns out, doesn't want my name to exploit so much as a bit of liveliness -- which pleased me mightily. And knowing that there's no way I could ever get the enclosed into DTM, which doesnx't DO this kind of story, much less about its own uncles, I rather took matters into my own hands and decided this was the right anxioak outlet (far better for your ideas, I think, than Judy's UK-programmers market) (or even Erik's NERRERE-Scandinavian programmers market) -- so I've offered it to a most-enthusiastic Larry under my best psaudonym (I often do things for European Business, or used to until they stopped paying real money, and they'd use more than one artible from me in an issue, so I needed another name for the seconds ... thus giving the issue the look of having a cast of thousands...so 'John Cook' is already well established in the appropriate European circles, including a nice article a couple of years ago about some of the fallacies in the idea of 'spinoff' -- someone actually studied it, and it turned out to be marketing spinoff, not technical spinoff from Concorde. Not even any Teflon ftying pans to show for the effort! Just more sales for PICS for IBM -who didn't need an umpty-billion assist!)

Where was I? Ah ... anyway, the other coincidence is that this morning, with the enclosed halfway finished in my typewriter, the postman brought your letter -and simply confirmed my belief in ESP or telepathy or whatever. It was precognition before -- writing you before Larry phoned -- and telepathy this week -- your answer as I was slaving over the lovely Armer papers.

Mark it up however you like. I'm sending you two sets...mark up the original and send it on to Larry as soon as you're satisfied (I'd love to have a carbon). I've never written for him before (one doesn't for the ICP quarterly), but presume he'll leave it pretty much as we want it. It's YOUR story, dear, and John Cook has utterly no ego at all -- and my attempts to capture your style may not suit you in translation, so feel free to do whatever you will. I have as much faith in your journalistic sense as your wider sense.

Which reminds me of something late in the Smithsonian papers...which I didn't have room to incorporate, about phoning DTM editors and pushing out good ideas for wider distribution. I think DTM needs this kind of connection these days ... I have a lot of time for Kirkley, who is a fine man. Angie and I go nuts dealing with the news side (Tom never leaves his desk in LA, so doesn't share our great enthusiasm for such structural stories as the CII-Honeybull flap, which we've been covering copiously since last November, with most of our best efforts never reaching the pages and the rest of them botched en route.) But I suspect John would be

VAT Number 239-8134-42 Director: Nancy Foy (U.S.A.)





USC / INFORMATION SCIENCES INSTITUTE

4676 Admiralty Way Marina del Rey California 90291

CoAtes Heller WEBER LEA

July 28, 1975

Mr. Paul Armer Center for Advanced Study in the Behavioral Sciences 202 Junipero Serra Boulevard Stanford, California 94305

Dear Paul:

Thanks for the leads. I believe Phil has the text of the F. Rowan statements for you.

Your help and suggestions in getting Phil known are very much appreciated.

Sincerely,

Keith Uncapher

KU/jc

cc: Phil Nyborg

1133 AVENUE OF THE AMERICAS NEW YORK, N.Y. 10036 (212) 265-6300



Association for Computing Machinery

July 11, 1975 Returned from on 7/24/75

I want to thank you for taking time from a busy schedule to present some valuable ideas and insights at our ACM 1974 Annual Conference. The reaction to the conference has been enthusiastic and your presentation greatly contributed to its success.

As we announced at the Conference, sessions of general interest were tape recorded. These recordings will be of considerable interest and benefit to our membership; already, many members have indicated that the cassettes will allow them to review the information more fully. Conference speakers have been equally interested in expanding their audience to include those who could not attend their session.

ACM has appointed Information Cassettes, Inc., a major producer of quality conference audio cassettes, to create an audio cassette library of selected presentations. These cassettes will be made available as an education service to the ACM membership and the rest of the professional community.

Enclosed is a cassette containing your presentation; we would like you to keep it with our compliments. You'll probably notice that the recording studio reviews each recording and tries to enhance its listening qualities by reducing distracting pauses, repetitious or unintentional remarks, and references to visuals. Although time consuming, they believe it is necessary to successfully convert conference presentations to audio cassette form.

So that the ACM distribution schedule can be met, please return one copy of the recording release in the postage paid envelope by July 30, 1975.

Thanks again for your time and cooperation.

James M. Adams, Jr. Director of Operations

ACM

Enclosures

P.S. Due to the possibility of a strike or slow down in the postal service, we ask that you call collect to Information Cassettes, (312) 944-2120, to give your approval as well as sign and mail the enclosed form. Thank you. (KRK)



INFORMATION CASSETTES, INC. 430 N. Michigan Ave. Chicago, Illinois 60611 (312) 944-2120

Information Cassettes, Inc. 430 North Michigan Avenue Chicago, Illinois 60611

Gentlemen:

I have reviewed the tape recording which you have sent me, containing my presentation at the ACM 1974 Annual Conference.

This is to inform you that I authorize the release for your use this recorded version of my presentation. This authorization includes the right to use the recording for reproduction and sale to ACM members and non-members interested in this topic area.

Of Course, I understand that it does not in any way restrict my use of or right to the information and the material I presented at the above meeting.

I Acknowledge having the right to provide you with this authority. In addition, you have my permission to use my name, likeness and biographical information to publicize the sale of the cassette version of my presentation.

I am providing this authorization in consideration of the releases given by the other participants as well as your efforts to distribute my presentation and information in this field in such a beneficial manner.

Date: 7/24/75

Name: (Signature)

Please print your:

Name Title Organization

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES 202 Junipero Serra Boulevard • Stanford, California 94305 Telephone (415) 321-2052 23 July 1975 Dr. Philip S. Nyborg AFIPS 2100 L Street, N.W. Suite 420 Washington, D.C. 20037 Dear Phil: First of all, congratulations and good luck on your new assignment. Actually, the congratulations should go to AFIPS for having landed you. I'm in need of some help. Early in June (maybe late May) a man who works for NBC News by the name of Ford Rowan was responsible for several stories about computer networks. Technically, they were pretty bad. As a result, Senator Tunney accelerated some hearings he was planning and asked me (among others) to testify. A copy of my testimony is enclosed along with copies of some of the stories Rowan was responsible for. You will note that some of the transcripts are illigible in places and with the exception of the piece labelled "The Technospies: . . . " and dated 29 May 1975, not very well labelled. My favor to ask of you is to contact Ford Rowan (I'm told that he is in NBC News' Washington Office) and see if you can obtain a complete set of readable copies (I don't need "technospies"--it's in good shape) and well labelled copies. Rumor has it that he was on the TODAY Show once again around June 23--I haven't seen a transcript of that. I have several reasons for asking you to try to get this material for me. First, since I wasn't kind to him in my testimony and since he may be aware of that, a direct approach by me might not prove successful. Second, if you approach him you can introduce yourself and maybe next time he, at least, may try to get his technical facts straight by contacting you. My reason for wanting the transcripts is that I intend to suggest to Tony Ralston that this incident is an example of something AFIPS should worry about. I don't really have any good ideas as to what should be done, so if you do, let's hear from you. In my travels in Washington I've met several staff people in the Senate and in OTP whom I think you should know. I'll write letters to them about you and send you copies. Then you can contact them. Baul Paul Armer See P.S." on next page. Sincerely yours, PA:mt cc: A. Rilston R. Rector/T. White K. Uncapher

P.S.: This is apt to be the longest "P.S." I've ever written but the arrival on my desk of the July issue of Privacy Journal made me think of more to write to you. First of all, a copy of the July issue of the Privacy Journal is enclosed. If you don't already subscribe to it, you should. Further, you should introduce yourself to Robert E. Smith, the publisher (Phone is 202-547-2865). Tell him I suggested that you get together. He's a former ACLU staffer and a nice guy. He's sort of a lobbyist for privacy. His contacts might be helpful to you and your computer knowledge and contacts might be useful to him.

I'm presuming that you're knocking on doors in the House and Senate offering help and knowledge if they want it. Something like the <u>Privacy Journal</u> would give you leads on whom to contact and pieces of legislation to follow. For example on page 3 there are references to H.R. 214, H.R. 1005, H.R. 7483, and S.1840 along with references to Mosher, Mathias, Abzug and Proxmire.

A similar journal is the <u>Privacy Report</u>. I think you should subscribe to it for the same reasons. A copy is enclosed.

On page 2 of the <u>Privacy Journal</u> you will find an address for Ford Rowan. Despite the fact that this invites inquiries for the Transcripts, I'd still prefer your doing the asking for me for all the reasons stated earlier.

Also enclosed are copies of recent correspondence I've had with Senator Percy. You might go pound on his door.

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

202 Junipero Serra Blvd. • Stanford, California 94305 • (415) 321-2052 Kerth Maple Most of this you will probably want to only glance at & then put into the availar file. But I did want you to see what I was sending to Phil. withing to Phil directly with this request. It seemed a minor one to me of one which resulted in Some benefit to Phil & AFIPS.

Am a correct in believing that one of the things Phil is to do is to make himself known to staffmembers in the House & Senate? Ill not write the letters I mention in my letter to him until I hear from you on this question. And Ill touch base with you before cc: Raiston Best personal regards, Rector/White

23 July 1975 Dr. William H. Davidow Intel Corporation 3065 Bowers Avenue Santa Clara, California 95051 Dear Bill: First of all, I want to thank you for sending me a copy of your COMPCON speech of last September. I enjoyed it very much and, as you will see in the enclosed copy of my Senate testimony, I have borrowed from it. As you are aware, I was called to testify with less than a week's notice. Part of my testimony was to cover the state-of-the-art in computer technology. Consequently, I needed to update my information about the field and I also wanted some slides. Naturally, I thought of the world's largest computer manufacturer and phoned you. Youwwere on vacation but Charlie remembered typing a letter from you to me and volunteered to help if I'd describe my needs. She was most helpful and produced a great deal of pertinent information for me, including 88 slides. Unfortunately, due to the insanity going on in the Senate over the sitting of a Senator from New Hampshire, the time available for my testimony was almost reduced to zero. Consequently, I didn't get to show any slides and used only a small amount of the other material. All references to Intel became like the face on the cutting room floor. When I told Charlie about this on my return she was quite philosophic about it, saying "Oh well, it's better to be prepared and not have the time than to be unprepared and have the time." The purpose of all this is to thank Charlie profusely and to thank you for having the wisdom to have a secretary like Charlie. I think she's a gem. Best personal regards, Paul Armer PA:mt

22 July 1975

Professor Yehuda Elkana Van Leer Jerusalem Foundation 43 Jabotinsky Street Jerusalem, Israel

Dear Yehuda:

When you come to the Center next month, how long will you stay? I ask because of the tummendous difference between the excursion fare (22-45 days) and normal high season rates. Also, unless you object, we would prefer to prepay your ticket from here. That is, we would pay the local TWA office and they would wire their office in Israel to issue you a ticket.

Further, our grant from the National Science Foundation requires the use of U.S. airlines unless it's next to impossible to do so. This morning I was quoted the following rates:

Excursion (22-45 days) \$1280.45 Regular Economy High Season 2060,25

These include the fare, the Israeli tax and the U.S. tax of \$3.00.

We look forward to seeing you soon.

Paul Armer

PA:mt

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EMILIO Q. DADDARIO

Congress of the United States OFFICE OF TECHNOLOGY ASSESSMENT

WASHINGTON, D.C. 20510

EMILIO Q. DADDARIO DANIEL V. DESIMONE DEPUTY DIRECTOR

July 21, 1975

Paul Armer Program on Science, Technology and Society Center for Advance Study in the Behavioral Sciences 202 Junipero Serra Boulevard Stanford, California 94305

Dear Paul:

Thank you for sending me a copy of the Second General Report of POSTS. It looks like the NSF money is being used to good advantage.

I have xeroxed the list of publications and presentations from the Report and have noted a number of items. If complimentary copies are available, I would appreciate receiving them.

Some material of mine is enclosed for your information. I do not think I have sent it to you in our previous correspondence.

Yours truly,

Joseph F. Coates

Enclosures

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

202 Junipero Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

July 21, 1975

Barbara A. Mutz
Office of Exploratory Research Problem Assessment (RANN)
National Science Foundation
1800 G Street, N.W.
Washington, D.C. 20550

Dear Mrs. Mutz:

Enclosed please find copies of NTIS Form #35 on six articles resulting from Grant #SSH71-01834-A01. Fifty copies of each article are being shipped separately, in accordance with Dr. George E. Brosseau's request. As before, would you please pass his copies on to him?

Sincerely,

Paul Armer

POSTS Program Coordinator

Enclosures: NTIS Form #35 for: ALLI-G-03

ALLI-G-04

ELIT-G-01

MANS-E-06

MERT-R-12

ZUCK-H-02

cc: Dr. G. E. Brosseau, Jr.

PA/pkg

BIBLIOGRAPHIC DATA SHEET POSTS-ALLI-G-03 1. Report No. POSTS-ALLI-G-03	3. Recipient's Accession No.
"Cold Dawn and the Mind of Kissinger"	5. Report Date March, 1974 6.
7. Author(s) Graham Allison, Kennedy School of Government, Harvard University 9. Performing Organization Name and Address Program on Science and Technology and Society	8. Performing Organization Rept. No. 10. Project/Task/Work Unit No.
202 Junipero Serra Boulevard Stanford, California 94305	11. Contract/Grant No. SSH71-01834-A01
12. Sponsoring Organization Name and Address National Science Foundation 1800 G Street, N.W. Washington, D.C. 20550	13. Type of Report & Period Covered article, see #5
15. Supplementary Notes D. L. L. L.	

15. Supplementary Notes Published in the March, 1974 issue of the Washington Monthly (pp.38 - 47) © 1974 by the Washington Monthly Company at 1028 Connecticut Avenue, N.W., Washington, D.C. 20036.

Focussing on the SALT talks and basing his argument on books by John Newhouse and Stephen Graubard (Cold Dawn: The Story of SALT and Kissinger: Portrait of a Mind, respectively) Allison describes the intra and inter-governmental negotiations which took place in the development of U.S. proposals for SALT. He quotes Newhouse to emphasize the importance of internal bargaining: "The marrow of SALT is found in the contesting views and clashing organizational interests of the government agencies." Ironically however, Henry Kissinger's philosophy of international policy-making presumes that the diplomat must act outside and beyond such intra-governmental considerations. As Graubard shows, by reading Kissinger's own works about the management of international affairs, one can find explanations for the independent initiative he has taken on many occasions.

17. Key Words and Document Analysis. 17a. Descriptors

1503 - STRATEGIC WEAPONS

0504 - POLITICAL SCIENCE/international relations

17b. Identifiers/Open-Ended Terms

Strategic Arms Limitation Talks (SALT) Henry Kissinger

7c. COSATI Field/Group primary: 05. A and 05. D.; secondary: 18. Availability Statement Security Class (This 21. No. of Pages Release Unlimited; see #15 for publication and Report) 10 TING LASSIFIED address. Security Class (This 22. Price N/A Page UNCLASSIFIED FORM NTIS-35 (REV. 3-72)

BIBLIOGRAPHIC DATA	1. Report No. POSTS-ALLI-G-04	2.	3. Recipient's Accession No.	
4. Title and Subtitle			5. Report Date	
THE CASE OF THE FOL	RTH PLATOON			
			6.	
7. Author(s) Graham T. Moore, Timothy Bate	rk 8. Performing Organization Rept.			
9. Performing Organization N Program on Science,	10. Project/Task/Work Unit No.			
	Study in the Behaviora	1 Sciences	11. Contract/Grant No.	
202 Junipero Serra Stanford, Californi	SSH71-01834-A01			
12. Sponsoring Organization	13. Type of Report & Period Covered			
National Science Fo	article, see #5			
1800 G Street, N.W.	14.			
Washington, D.C.				
15. Supplementary Notes Published in <u>Urban Analysis</u> , Vol. 3, 1974, pp. 207 - 258 © 1974 by Gordon and Breach Science Publishers in Great Britain.				
16. Abstracts This is a study of the introduction of change into an organization. In the early 1970's to improve efficiency in the deployment of the resources of the New York Police Department, Mayor Lindsay proposed the establishment of a "fourth platoon" of men which would work the 6:00 p.m. to 2:00 a m. shift, the most crime prone time. After a lengthy and sometimes bitter battle with certain police officials, the policeman's union				
Lindsay and the Department reached a compromise over the issue. The "fourth platoon" was to be deployed, but it was to be comprised of police people volunteering for the shift. During the implementation phase, however, Lindsay's time and attention were				

absorbed by his reelection campaign, and the Department's planning division attempted to implement the new plan very slowly and on a piecemeal basis. Supervision of the parts of the "fourth platoon" which were deployed was poor or nonexistent. By 1971 the new

shift had deteriorated to the point where it was evident that it would soon be

effectively dismantled. 17. Key Words and Document Analysis. 17a. Descriptors

0509 - POLICE

0501 - PLANNING

17b. Identifiers/Open-Ended Terms

Implementation; "fourth platoon;" New York Police Department; change

7c. COSATI Field/Group 05.A. Administration and Management 18. Availability Statement 21. No. of Pages 19. Security Class (This Report) 52 UNCLASSIFIED 20. Security Class (This Release Unlimited; see #15 for information 22. Price Page UNCLASSIFIED

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	4. Title and Subtitle		5. Report Da		1
	HISTORY, PHILOSOPHY AND SOCIOLOGY OF SCIENCE -		June, 19	75	-
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	7. Author(s) Yehuda Elkana, Hebrew University of Jethackray, University of Pennsylvania; Robert K.		Ma	g Organization Rept.	
		ty; Harriet Zuck		Task/Work Unit No.	
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-	Washington, D.C.		14.		1.
	15. Supplementary Notes This is a collection of 60 boo 330 Madison Avenue, New York, New York 10017.				
	0504 - HISTORY society, analytica philosoph of the co	ry Cavendish and natural sciences ager taken for green heritage of enewly-problemane selectors embast know where we Rather, guided by, and sociological the collection of sociological and sociological	A.R. Wall have become action between the scientific and the last action between the scientific action between the scientific action scientific action between the scientific action scientific a	ace. The group me of increasing possessing self natural science us of science. historian's m. This does ctives drawn fraces, and head-have searched evelopment of sed of biograph f science, intercen science and pioneers in the enterprise, nce, and accounscience in	pp ng f- cces
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BIBLIOGRAPHIC DATA	I. Report No. POSTS-MAN-E-06	2.	3. Recipient's Accession No.
4. Title and Subtitle			5. Report Date
International Techniments, and Policies	May, 1975, publication 6.		
7. Author(s) Edwin Ma	8. Performing Organization Rept.		
9. Performing Organization 1	10, Project/Task/Work Unit No.		
Program on Science,			
Center for Advanced	11. Contract/Grant No.		
202 Junipero Serra Stanford, Californi	SSH71-01834-A01		
12. Sponsoring Organization	13. Type of Report & Period Covered		
National Science Fo	article, see #5		
1800 G Street, N.W.	14.		
Washington, D.C.			

15. Supplementary Notes Published in the May, 1975 issue of <u>The American Economic Review</u> (vol. LXV, no. 2, pp. 372-388) © 1975 by the American Economic Association at 1313 21st Avenue South, Nashville, Tennessee 37202.

16. Abstracts The transfer of technology is by no means costless. When a plant is built abroad based on U.S. technology, there generally are outlays for engineering consultation prior to building the plant, costs of transferring engineering information concerning the process and/or product and of supervising the detailed engineering, research and development (R & D) costs involved in adapting the technology, and costs due to low labor productivity and poor product quality during the period when the workers are learning to utilize the new technology. Research indicates that these costs of transfering technology are a substantial portion of the cost of establishing a new plant abroad. These costs and benefits of technology transfer need to be studied further, particularly in the area of U.S. - U.S.S.R. transfers. It is unknown what economic costs may be incurred by the U.S. through the relaxation of controls on U.S. - U.S.S.R. transfers. We need to weigh the political benefits of détente against the possible economic costs.

17. Key Words and Document Analysis. 17c. Descriptors

0503/0504 - INTERNATIONAL TRADE

0501/1401 - BENEFIT COST ANALYSIS

17b. Identifiers/Open-Ended Terms

technology transfer.

U.S. - U.S.S.R. Joint Commission on Science and Technology.

U.S. - U.S.S.R. Project Group on the Economics of Scientific and Technological Information.

17c. COSATI Field/Group 14.A. and 05.C. 18. Availability Statement

Release Unlimited; see #15 for information.

19. Security Class (This Report) 17
20. Security Class (This Page UNCLASSIFIED 22. Price Page UNCLASSIFIED 22. Price Page UNCLASSIFIED

BIBLIOGRAPHIC DATA 1. Report No. 3. Recipient's Accession No. POSTS-MERT-R-12 5. Report Date April 25, 4. Title and Subtitle THEMATIC ANALYSIS IN SCIENCE: NOTES ON HOLTON'S CONCEPT 1975, publication 7. Author(s) Robert K. Merton, University Professor of Columbia 8. Performing Organization Rept. University 9. Performing Organization Name and Address 10. Project/Task/Work Unit No. Program on Science, Technology and Society 11. Contract/Grant No. Center for Advanced Study in the Behavioral Sciences 202 Junipero Serra Boulevard SSH71-01834-A01 Stanford, California 94305 12. Sponsoring Organization Name and Address 13. Type of Report & Period Covered National Science Foundation article, see #5 1800 G Street 14. Washington, D.C. 20550 15. Supplementary Notes Published in the April 25, 1975 issue of Science (vol. 188, #4186, pp. 335 - 337) @ 1975 by the American Association for the Advancement of Science at 1515 Massachusetts Ave., N.W. Washington, D.C. 20005. 16. Abstracts In his work, Gerald Holton, a noted historian of science, uses thematic analysis, which assumes that there are underlying elements in the concepts, methods, presuppositions and hypotheses advanced in science. These elements function as themes that constrain or motivate the individual scientist and consolidate or polarize the given community of scientists. Themes in science involve the tacit imageries, preferences and commitments to certain kinds of ideas, methods, evidence and problems, and to certain forms of solutions. Merton suggests that the sense of agreement or disagreement among scientists may be partly accounted for by their having similar or differing themata. Holton identifies themata inductively, carefully studying case after case to obtain a working list of thematic concepts, methods and hypotheses. Sociologists and political scientists have long used thematic analysis as a phase in the con-

tent analysis of documents. Holton has adapted this tool for the interpretation of styles in scientific work. In addition to their sharing of tools, Merton indicates numerous

parallels and intersections which do or could occur between the history and the sociol-17. Key Words and Document Analysis. 170. Descriptors

0510 - CONCEPTS

0500 - SOCIAL SCIENCES

0511 - SOCIOLOGY

ogy of science. In particular, the two fields could share the investigation of many common problems, including the thematic basis of problem-finding and problem selection in science.

17b. Identifiers/Open-Ended Terms

Themata

17c. COSATI Field/Group Primary: 05.K. and 05.D. 18. Availability Statement 19. Security Class (This 21. No. of Pages Report) UNCLASSIFIED Security Class (This 22. Price Release Unlimited; see #15 for information Page UNCLASSIFIED

BIBLIOGRAPHIC DATA	1. Report No. POSTS-ZUCK-H-02	2.	3. Recipient's Accession No.
4. Title and Subtitle			5. Report Date
Women in American	Science	Spring, 1975, publicatio	
			6.
	Zuckerman, Columbia Univ Cole, Columbia Universi		8. Performing Organization Rept. No.
9. Performing Organization	Name and Address	10. Project/Task/Work Unit No.	
Program on Science			
	d Study in the Behaviora	11. Contract/Grant No.	
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12. Sponsoring Organization Name and Address			13. Type of Report & Period Covered
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1800 G Street, N.W	article, see #5		
Washington, D.C.			14.
15. Supplementary Notes	Published in the Spring,	1975 issue of M	inerva (vol. XIII, no. 1,

pp. 82 - 102) @ 1975 by the International Association for Cultural Freedom at 59 St. Martin's Lane, London, England Wc2N 4JS.

16. Abstracts In a systematic review of the evidence of the educational aspirations, attainments and career histories of women in American science, the authors suggest that women encounter three barriers to becoming productive scientists. First, science is culturally defined as an inappropriate career for women. Second, those women who have surmounted the first barrier and have become scientists, continue to be hampered by the belief that women are less competent than men. And third, there is discrimination against women scientists such that they are not rewarded to the same extent as men with similar records of performance. Moreover, the current contraction of the market for Ph.D.'s is likely to make it more difficult for a woman to be hired for a good position when a man is also qualified and the position is traditionally filled by a male.

17. Key Words and Document Analysis. 17a. Descriptors

0603 - FEMALES

0511 - SOCIAL ORGANIZATION

0510/0511 - SOCIOECONOMIC STATUS

17b. Identifiers/Open-Ended Terms

Discrimination

c. COSATI Field/Group 05.I. and 05.K. 18. Availability Statement 21. No. of Pages 19. Security Class (This Report) 21 UNCLASSIFIED 20. Security Class (This 22. Price Release Unlimited; see #15 for information. Page UNCLASSIFIED

FORM NTIS-35 (REV. 3-72)

USCOMM-DC 14952-P72

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

202 Junipero Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

21 July 1975

Senator Charles H. Percy U.S. Senate Committee on Government Operations Washington, D.C. 20510

Dear Senator Percy:

This is in response to your letter of June 26, 1975, asking me to review Amendment No. 495 to S.495 with respect to whether Amendment 495 is a potentially workable vehicle for enacting legislation to control "the problem of computer theft and sabotage by wiretap." (I'm quoting your letter.)

First of all, let me say that I heartily agree with the aims of the amendment as it stands and with the goal of also covering control of the problem of computer theft and sabotage. I am particularly pleased to see that you hope to close "the big gaping hole in the center of the doughnut" of the "one party consent" exception. And that reasonable sanctions are imposed on violators. I would go further than the proposed legislation does with respect to notification by phone companies of discovered taps. I would require the phone company to notify the subscriber of the tap unless the police agency they have contacted notifies the phone company in writing within (say) two working days that a warrant exists for the tap, citing the judge who authorized it and the warrant date and number (I'm assuming that they are numbered—are they?). If the police don't so notify the phone company, the phone company must notify the subscriber in writing within (say) one working day after the expiration of time given to the police for determining the existence of a warrant for the tap.

This implies the existence of a centralized list of all authorized taps in a given geographical area (the office of the U.S. Attorney?) which includes warrantless taps authorized for National Security reasons by the President and/or Attorney General (I'm confused as to the legal status of such taps at the present moment.) . As I think more about it, I guess the agency which keeps the centralized list should be the "police agency" which gets notified by the phone company.

The heart of your question about using this amendment to deal with computer theft and sabotage is whether or not the definition section of page 2, lines 5 to 14 (henceforth, references to pages and lines will be in the form "page #-line #'s") could be modified to include computer related eavesdropping. I believe it could. Whether or not it should depends on

which strategy one thinks should be adopted in dealing with computer theft, abuse, and sabotage. Should one attempt to deal with the entire problem with a single package of legislation or is it okay to "nibble away at it" in the way amending amendment 495 would do? I personally come down on the side of amending 495 but would not do so if there were a good case that including the computer problem would lower the probability of the passage of amendment 495. I believe that those who oppose "anti-wiretap" legislation would normally be more relaxed about imposing penalties for eavesdropping of computer "conversations" than they would be about the legislation proposed in amendment 495. Therefore, I don't think that adding the computer would affect the probability of passage very much.

Re the definition problem, I don't have ready access to section 2510 (5) of Chapter 119 of title 18 of the U.S. Code [2-5 to 14]. However, I find myself a bit unhappy with the present form where we find "electronic, mechanical, or other device" throughout the legislation. "Electronic, mechanical, or other device" is such an incredibly broad definition, including all things non-natural/inanimate from battleships to pencils and pins. I realize that the definitions of section 2510 (5) of chapter 119 of title 18 of the U.S. Code and of page 2 of amendment 495 narrow the definition and that, legally, the amendment is perfectly okay. But, aesthetically, it bothers me. I note that in the statement you made upon the introduction of A-495 (Congressional Record S8984-S8985), you did not use the phrase "electronic, mechanical, or other device" but rather, used "eavesdropping device." Why not use "eavesdropping device" throughout A-495, after an appropriate definition on page 2? And that definition could include computer communications, whether they be man to computer, computer to man, computer to computer, computer to peripheral device, etc. I believe that use of words like "wire" [21-20] or "oral" [21-21] should, in general, be avoided in the body of the legislation. They limit the definition in an undesirable way. If section 2511 of chapter 119 of title 18 of the U.S. Code has words like these or "conversation" [17-20] and 17-24], maybe it should be amended as well.

Incidentally, the references to title 18 on page 17 all include a reference to chapter 119 of title 18 while the reference on [2-7] does not contain chapter 119 or any chapter number. Is this an oversight? Neither do the references at [5-21, 16-20, 16-25, 18-12, 21-2, 21-15, and 21-25].

Back to more important things. It's important that the definition of "eavesdropping devices" be broad enough to cover interception of microwave transmissions (as the U.S.S.R. reportedly did of microwave transmissions in the Washington area) and of other "emanations" not necessarily intended for communication. For example, a printer connected to a computer (even if the connection is over a long distance) gives out electromagnetic radiation which can be picked up some distance away (say, several hundred feet) and

the material being printed out can be reproduced. This is hardly a "conversation" unless "conversation" is defined to include "emanations" of this sort. What is true for printers here is also true for other devices like computer terminals and other imput/output gear. If you want to know more about this problem, I'd suggest you contact the people responsible for security in the Department of Defense, and/or N.S.A., and/or Dr. J. C. R. Licklider of ARPA (202-694-4001).

Since you're also concerned with sabotage, the inverse of the above must be considered. That is, I could sabotage someone's computer (if it weren't appropriately shielded) by directing electromagnetic energy at it. Radars often "zap" nearby computers in this way. The same places cited above are acquainted with this problem as well.

The sabotage problem is probably the one area you wish to cover which may have to have some specific verbage devoted to it in the body rather than being handled by an appropriate definition. Not having access to the U.S. Code handicaps me somewhat, but if chapter 119 of title 18 doesn't now forbid the eavesdropping of computer "conversations" or of "emanations" from computers and computer peripheral devices, it should be so amended. Similarly, directing electromagnetic radiation at the computer/peripheral device should be a crime.

As I thought of the licensing approach, my first reaction to it was that it would never work. First of all, the problem of affixing a non-erasible I.D. number to all such devices (e.g., a tie-pin microphone) seems to me to be impossible. Particularly at the unsophisticated end of the spectrum, such devices may be small and home made. Individuals who are knowingly violating the law by eavesdropping are not going to devote much energy to complying with Amendment 495. However, after a bit it occurred to me that the real intent is not to have a list of such devices and manufacturers but rather to have a means of banning non-legitimate traffic in the devices. So, maybe it's worth a try. The only reason that it might not be worth a try is that the bureaucratic costs may far exceed the benefits. And once Uncle Sam sets up a bureaucracy, it seems hard to kill it. Maybe the thing to do would be to have the legislation self-destruct in a decade unless Congress extends its life.

I want to emphasize that while including coverage of computer "conversations" in amendment 495 is a step in the right direction, it doesn't begin to handle the broader problem of "computer theft and sabotage by wiretap" and of computer abuse in general.

In your letter, you asked me to comment on the "actual and potential extent of this problem." If, by "problem" you include the "by wiretap" in

Page Four Senator Charles H. Percy your definition, then I believe that the actual extent of the "problem" at the moment is minimal, chiefly because other links in the chain are so incredibly weak. As they get strengthened, then the potential becomes significant. If by "problem" you mean the entire problem of computer abuse, then the actual extent at the moment is considerable. If you are interested in this wider problem (and even if your concerns are limited to those expressed in your letter), I recommend that you contact Mr. Donn Parker and Ms. Susan Nycum. Mr. Parker is generally regarded as one of the most knowledgeable individuals in the world when it comes to computer crime and abuse. Ms. Nycum works with Mr. Parker (as well as on her own) and is a lawyer as well as a computer expert. Both can comment on the issues raised in your letter to me as well as being experts on computer crime and abuse. Their addresses are: Mr. Donn B. Parker Stanford Research Institute 333 Ravenswood Avenue Menlo Park, California 94025 (415) 326-6200, Ext. 2378 Ms. Susan Nycum MacCleod, Fuller, Muir & Godwin 175 South San Antonio Road Los Altos, California 94022 (415) 941-0410 Since you commented on my testimony before Senator Tunney's Subcommittee on Constitutional Rights on June 23, I am enclosing a copy of my edited remarks. If I can be of further service to you, please ask. Sincerely yours, Paul Armer Fellow PA:mt cc: Senator John Tunney Donn Parker Susan Nycum

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CHIEF COUNSEL AND STAFF DIRECTOR

United States Senate

COMMITTEE ON GOVERNMENT OPERATIONS WASHINGTON, D.C. 20510

June 26, 1975

Mr. Paul Armor 105 Hillside Avenue Menlo Park, California 94025

Dear Mr. Armor:

Enclosed is a copy of Amendment No. 495 to S. 495, along with the statement I made upon its introduction into the Senate.

In view of your knowledgeable and expert testimony before Senator Tunney's Subcommittee on Constitutional Rights on June 23, I hoped you could comment on some of the sidelights of this legislation as they might potentially relate to the problem of computer theft and sabotage by wiretap. Specifically, it has come to our attention that it is now possible for an individual to tap computer transmission lines for the purpose of either stealing data, destroying data, or altering data.

It is our view that Amendment 495 is a potentially workable vehicle for enacting legislation to control this problem. That is, by expanding the scope of the wiretap laws so as to include "data" communications along with "wire" and "oral" communications, and effectively controlling the tapping devices themselves, a significant inroad can be made into this area

As an experienced computer specialist, your comments on the actual and potential extent of this problem, as well as the feasibility and desirability of our suggested or other suggested approaches to it, would indeed be of great assistance to us.

The Government Operations Committee expects to hold hearings on this legislation in the not too distant future, and your comments on this particular aspect of the legislation would be most helpful.

June 26, 1975 Page 2

I look forward to hearing from you.

Sincerely, harles IV, Verry

Charles H. Percy Ranking Minority Member

CHP:kls

Enclosure

DATA PROCESSING MANAGEMENT ASSOCIATION

Past International President HERBERT B. SAFFORD, CDP

GTE Data Service Inc. 4750 Lincoln Blvd. Marina Del Rey, California 90291 Area Code 213/821-0511 Ext. 224

July 16, 1975

Mr. Paul Armer Center For Advanced Study In The Behavioral Sciences 202 Junipero Serra Blvd. Stanford, California 94305

Dear Paul

It was good to see you again at the DCA Meeting. That was a fun evening and I thoroughly enjoyed it. As per our conversation on that evening, I would like to confirm our invitation to you to be a seminar speaker at the DPMA Western Computer Conference and Exhibits to be held in San Francisco on October 9-10, 1975 at the Holiday Inn, Golden Gateway.

The two day conference will offer a 21 seminar program aimed at the theme "Making Data Processing More Profitable" which is the key thrust of most corporations today. The conference will also feature 50 exhibitors and is expected to attract over 500 attendees. All seminars are directed to the Data Processing Manager for both small and large shops with predominant emphasis on the conference theme.

The seminar which we would like you to present is entitled "Obsolescence and Self Assessment". Please feel free to include whatever material you feel appropriate in your presentation. A suggested abstract is included in the attached seminar list.

Your presence and presentation at the conference will provide much needed guidance and expertise in the field of Data Processing Management to those attending the conference.

Other invited speakers include: Dr. Herbert R. J. Grosch - keynote speaker, George Glaser - luncheon speaker, Peter Drucker, Captain Grace M. Hopper, Kenniston Lord, Dr. Keith Uncapher, Dr. Willis Ware and other well known speakers from many parts of the country. Most have already confirmed.



Mr. Paul Armer - 7/16/75 Page 2

Attached is a list of the seminar program to be presented. Hopefully it will provide a continuity for your presentation. I will be in touch with you shortly with the scheduled time of your presentation.

Please contact me at your early convenience if you have any questions.

Best Personal Regards

HERBERT B. SAFFORD Co-Chairman

DPMA Western Computer

Conference

LOUIS F. WAYERS

Co-Chairman

DPMA Western Computer

Louis F. Wayers

Conference

HBS:LN Attachment

16 July 1975 Mr. Douglass Lea U.S. Senate Committee on the Judiciary Constitutional Rights Subcommittee 102B Russell Office Building Washington, D.C. 20510 Dear Douglass: First of all, please find enclosed a statement of my expenses associated with testifying. Secondly, enclosed are some clippings I thought you might find of interest. Some relate to technologies which might be useful for surveillance; one is from Computer Decisions, which your clipping service may not cover. Will you be sending me any questions? It was a pleasure to meet you. If there is anything I can do to help with your investigation into surveillance or with matters related to privacy, please holler. Sincerely yours, Paul Armer Fellow PA:mt

EXPENSES of PAUL ARMER, associated with testifying before a joint meeting of the U.S. Senate Subcommittee on Constitutional Rights of the Committee on the Judiciary and the Subcommittee on Science and Technology of the Committee on Commerce -- June 23, 1975

AirfareSan Francisco to Washington and return	\$346.73
MileagePersonal auto, home to S.F. airport and return50 miles @ .15	7.50
MileagePersonal auto to INTEL to obtain material re testimony60 miles @ .15	9.00
Parking at San Francisco Airport	10.50
Hotel2 nights @ \$31.80	43.29
Meals Tips	.50
Taxis & Limosines Phone calls re testimony (see hotel bill)	9.00
TOTAL	4492.56

15 July 1975 Dr. George E. Brosseau, Jr. National Science Foundation RANN-Advanced Productivity R&D 1800 G Street, N.W. Washington, D.C. 20550 Dear George: Here are the names and addresses of the two individuals who might supply you with names of people who would be interested in Race Differences In Intelligence. Gardner Lindzey suggests that in addition to such names, either could probably provide names and addresses of the executive officers of the other social science professional societies, who might supply additional names. Dr. David Goslin, Executive Officer Assembly of Behavioral and Social Sciences National Academy of Sciences -- National Research Council 2101 Constitution Avenue Washington, D.C. 20418 Dr. C. Alan Boneau, Acting Executive Officer American Psychological Association 1200 Seventeenth Street, N.W. Washington, D.C. 20036 Enclosed is a copy of some testimony I gave three weeks ago in the U.S. Senate. I got in a brief plug for POSTS. Best personal regards, Paul Armer PA:mt

ลยี่บุร American Federation of Information Processing Societies, Inc. San Mateo, California 94402 July 10, 1975 Mr. Paul Armer Center for Advanced Study in Behavioral Sciences 202 Junipero Serra Blvd. Stanford, California 94305 Dear Paul: So many times during my term as AFIPS' president I called on you for your wise counsel, and each time you were very generous in giving it. I appreciate that and, in a way that doesn't begin to convey how valuable your help was, I'm sending you a small token of my -- and AFIPS' -- appreciation under separate cover. I hope it will remind you of our numerous sessions at The Goose, Celias, The Omelette House, et al. Best personal regards. George Glaser Past President GG:rlc AND CONTRACT OF THE PROPERTY O

30 June 1975 Mr. William R. Weber Counsel, Committee on Banking, Housing, and Urban Affairs United States Senate Washington, D.C. 20510 Dear Bill, It was good to meet you after our several phone conversations. I believe you intended to give me a "philosophy" paper re the EFTS legislation you were working up last week. Could you send it along to me? And a copy of the legislation in its present condition would also be appreciated. Copies of the N.B.I. material I promised is enclosed. The speech by Hock entitled "Competition for Financial Services In An Electronic Banking Environment" is the particular piece I discussed with you re Bank of America and Citicorp (see pages 8 and 9). In the speech entitled "Electronic Funds Transfer or Electronic Value Exchange?" Hock makes it quite clear how he feels about the Fed running an EFTS. Also enclosed is a copy of a speech by Henry Goldberg (former counsel of O.T.P.) re EFTs in case you didn't see it. Sincerely yours, The state of the state of Paul Armer PA:mt Encls: Electronic Funds Transfer or Electronic Value Exchange? News Release: April 25, 1975 NBI Members move to Establish Nationwide Asset Card Service Facts about BankAmericard Competition for Financial Services in an Electronic Banking Environment Remarks of Henry Goldberg

30 June 1975 Roil July 5 Public Information Center Federal Reserve Bank of Boston Boston, Massachusetts 02100 Gentlepeople: I am interested in obtaining a copy of: The Economics of A National EFTS Proceedings of a Conference Held in October 1975 Can you send me a copy? If not, can you tell me how I might obtain a copy? Sincerely yours, Paul Armer Fellow PA:mt CONTON FIRE A STATE OF

Dr. Willis H. Ware The RAND Corporation 1700 Main Street Santa Monica, California 90406 Dear Willis: I certainly enjoyed talking with you last Monday evening. I hope we'll have the chance to chat again before many weeks go by. Have you seen Metz's speech of May 22, 1975 to the Federal Bar Association? I ask because of our conversation about institutionalizing responsibility for the state of privacy in the country. In the cited speech, Metz discusses responsibility for the administration of privacy legislation. On the chance you didn't get a copy, one is enclosed. Also enclosed are copies of the transcripts of the various broadcasts by Ford Rowan on NBC News during the first week in June, plus some of the news stories resulting therefrom. Some of it didn't reproduce very well in earlier copying -- my copy is just as unreadable. I'll send you a copy of my Senate testimony as soon as I edit it. Also enclosed is a copy of a speech by Henry Goldberg which I think is worthwhile. McKinney is out of town until July 3 -- I'll try to call him then. Best personal regards, Paul Armer PA:mt

JAMES O. EASTLAND, MISS., CHAIRMAN

JOHN L. MC CLELLAN, ARK. ROMAN L. HRUSKA, NEBR. PHILIP A. HART, MICH. HIRAM L. FONG, HAWAII JOHN V. TUNNEY, CALIF.
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JOHN L. MC CLELLAN, ARK,
PHILIP A. HART, MICH,
EDWARD M. KENNEDY, MASS.
BIRCH BAYH, IND.
QUENTIN N. BURDICK, N. DAK.
ROBERT C. BYRD, W. VA.
WILLIAM L. SCOTT, VA.

PETER M. STOCKETT
CHIEF COUNSEL AND STAFF DIRECTOR

United States Senate

COMMITTEE ON THE JUDICIARY WASHINGTON, D.C. 20510

June 26, 1975

It is the practice of the Senate Constitutional Rights Subcommittee to provide an opportunity for witnesses to edit their remarks before sending the transcripts to the government printer, so that the printed record will accurately report the statements made.

Enclosed are transcript pages of your testimony, upon which you should indicate any grammatical corrections you deem appropriate.

Please return this material to our office by July 10th so that your corrections can be included in the copy sent to the printer.

The material should be mailed to:

George Downs, Sr., Printer Constitutional Rights Subcommittee A-601 Immigration & Naturilization Building Senate Annex 119 D Street, N. E. Washington, D. C. 20510

THE STANFORD UNIVERSITY LIBRARIES STANFORD, CALIFORNIA

OFFICE OF THE DIRECTOR

June 17, 1975

Mr. Paul Armer Center for Advanced Study in the Behavioral Sciences 202 Junipero Serra Boulevard Stanford, Ca. 94305

Dear Paul:

Thank you for your very thoughtful letter of June 5th and the comments about the reference librarians presentation on May 14th. Earl Borgeson was pleased to pass your compliments along - if a bit bloody!

The idea of continuing the Subcommittee on Automation was discussed by our senior officers in the library with the result that there was very considerable support for it. The only question would be what precise issues could such a group getting together for one day or so discuss with profit in making a report to the Visiting Committee. We believe that further attention to the internal Stanford setting is probably not warranted at this time when things seem to be going so well. Certain other issues of external marketing move at such a fast pace that there would not be time for this committee to gather and get into the issue. Thus it is likely to be in somewhat longer dimension and perhaps concerned with regional or national planning in the future development of the networking of services and the inter-connection of the variety of library automation systems that are now or will in the very next few years be marketed.

I look forward to talking with Otis about this. And we'll bring it up at the next BALLOTS Executive Committee meeting at which I suspect there will be concurrence that such a committee could be useful and that it should be a joint-subcommittee with the Computer Science Advisory Committee.

We very much benefited by your continued interest in the Library, support of the BALLOTS development, your compliments and encouragement to Hank Epstein, of whom I share your very high regard, and your very effective participation on the Visiting Committee to the Stanford University Libraries. Thank you very much, Paul, for all your continued support.

My best regards,

Cordially yours,

David C. Weber

Director

13 June 1975 Dr. Willis H. Ware RAND 1700 Main Street Santa Monica, California 90406 Dear Willis, Just wanted to say "congratulations." Not once, but twice. First, on your appointment to the Privacy Protection Study Commission. And I hear rumors (well placed, I think) that it is likely that you will become Chairman. I hope it works out that way. Incidentally, though I've combed through the N.Y. Times, the Washington Post and the L.A. Times, I've yet to see anything in print on the appointment of the President's three appointees. Have you? Secondly, congratulations on being selected as DPMA's Computer Sciences Man of the Year. And thank you for sending me a copy of the EFTS article that Pat Sullivan left for you. I hear that the EFTS Commission appointments will not be made "for months"! I wish you success while wearing your Privacy Commission hat. That sounds limiting -- I wish you happiness and success while wearing any hat or while bare-headed. It was great to see Floy in Anaheim after such a long time. Please give her my love. Best personal regards, Paul PA:mt



May 28, 1975

Mr. Paul Armer Center for Advanced Study in the Behavioral Sciences, Inc. 202 Junipero Serra Stanford, California 94305

Dear Paul:

Enclosed is a copy of an article left for me by Pat Sullivan, one of the directors of Consumer Union. It summarizes a number of viewpoints in one place. The name of the publication isn't clear on the copy I have. It may be a special CU monograph.

Sincerely,

Willis H. Ware

Corporate Research Staff

WHW:ph

Encl.: "Electronic Funds Transfer: A Technology in

Search of a Market"

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES 202 Junipero Serra Boulevard • Stanford, California 94305 Telephone (415) 321-2052 June 13, 1975 Charles B. Shaw The National Press 850 Hansen Way Palo Alto, California 94304 Dear Mr. Shaw: This letter is to confirm your quotation for the POSTS Second General Report. As we discussed, 750 copies are to be made @ \$2,245.00 plus tax, total. The cover stock is to be Carnival Hopsack, light blue, 65 lb. and the inner pages are to be white. Thanks very much for all your help with this. Pamela Gullard POSTS Enclosures

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

202 Junipero Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

6 June 1975

TO: Bernie Galler

FROM: Paul Armer , al

SUBJECT: ACM Government Reorganization

First of all, June 16 and June 30-July 3 are all okay with me for a conference call.

Re the committee's proposal, it seems to me that it suffered from being misunderstood. There is another way of stating what we had in mind. Namely, we were concerned with balancing representation between SIGS and Chapters and with giving better representation to the membership, most of whom were not members of chapters and many of whom were not members of SIGS. To deal with the latter point, there were a number of ways in which we could have divided up the members for purposes of representation. We could have taken the first 1/N (where N is the number of representatives) names from the membership list and told them to elect a representative from among themselves, etc. Or, we could have asked each how much he weighed and divided the membership into groups that way.

But because of the advantages of easier access, we opted for slicing on a geographical basis. I now wonder if we wouldn't be better advised to take the alphabetical route. It lacks the access advantage which is not, in my mind, very important. But it has the advantage of making our intent clear. It avoids the concern of the SIGS that the new Divisional Reps will be Chapter oriented; and the international/domestic representation problem just disappears.

Worth thinking and talking about?

6 June 1975 Professor Robert B. Eckhardt Department of Anthropology Pennsylvania State University 409 Social Science Building University Park, Pennsylvania 16802 Dear Professor Eckhardt: First of all, let me apologize for not responding sooner to your recent letter -- it arrived while I was on an extended trip. A July 1 deadline doesn't help--even a September 1 deadline would be almost impossible. Sorry, Paul Armer PA:mt

THE PENNSYLVANIA STATE UNIVERSITY

409 SOCIAL SCIENCE BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

College of the Liberal Arts
Department of Anthropology

Area Code 814 865-2509

May 10, 1975

Dr. Paul Armer Center for Advanced Study in the Behavioral Sciences 202 Junipero Serra Boulevard Stanford, California 94305

Dear Dr. Armer:

Thank you for your letter of May 1. Sorry that my earlier letter was incorrectly addressed and took some time to reach you.

I would very much be interested in receiving from you a paper on the impact of computer technology on society, as I had suggested earlier. I realized at the time that the June 1 deadline was giving you rather short notice, but I had hoped to fit a paper from you into an issue that had already been scheduled.

We have to have our copy to the printer by July 15. I could juggle things a bit and plan to edit your paper last; this would still be workable if we received your paper by July 1, though the earlier the better.

This would not give you very much longer, but I would be grateful if you could work it into your schedule.

Sincerely yours,

Robert B. Eckhardt Co-editor, JGE

Robert S. Felhardy

6 June 1975 Ms Barbara A. Montague R.D. 2, Box 26A Hockessin, Delaware 19717 Dear Ms Montague, First of all, I'm sorry that this did not reach you sooner. CASBS is not a formal part of Stanford University and your letter, addressed to Stanford University, found its way to my desk only yesterday. And I have to say "I'm sorry" a second time--to accept your kind invitation to address the Division of Chemical Information of A.C.S. would require me to cancel my family's vacation plans. The talk you describe, it seems to me, could be readily obtained from Professor Peter G. Lykos of the Illinois Institute of Technology. Thank you for the invitation; maybe another time. I'd probably be more interested in discussing obsolescence and the use of selfassessment tests. Enclosed is a copy of a talk given to an audience of computer people--from it you can get an idea of what I have in Sincerely yours, Paul Armer PA:mt

gested that you could provide an outstanding, thought-provoking luncheon talk owing to your interest in the impact of computer

We would be highly honored to have you as our guest I would appreciate your reply by June 6 sent to my speaker. home address in Hockessin shown above.

Sincerely,

Barbara A. Montague

Chairman

American Chemical Society Division of Chemical Information

Barbara a. Montaque

BAM/cdk

Walter M. Carlson Cynthia H. O'Donohue Bruno M. Vasta

6 June 1975 TO: Bernie Galler FROM: Paul Armer SUBJECT: ACM Government Reorganization First of all, June 16 and June 30-July 3 are all okay with me for a conference call. Re the committee's proposal, it seems to me that it suffered from being misunderstood. There is another way of stating what we had in mind. Namely, we were concerned with balancing representation between SIGS and Chapters and with giving better representation to the membership, most of whom were not members of chapters and many of whom were not members of SIGS. To deal with the latter point, there were a number of ways in which we could have divided up the members for purposes of representation. We could have taken the first 1/N (where N is the number of representatives) names from the membership list and told them to elect a representative from among themselves, etc. Or, we could have asked each how much he weighed and divided the membership into groups that way.

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Worth thinking and talking about?

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

Telephone (415) 321-2052

5 June 1975

Professor Otis A. Pease

Mr. David Weber, Director The Stanford University Libraries Stanford, California 94305 Professor Otis A. Pease Department of History University of Washington 315 Smith Hall

Dear David & Otis:

Now that the report of the Subcommittee on Automation has been put to bed, I just wanted to say how much I've enjoyed serving on the Visiting Committee to the Stanford University Libraries. I personally learned a great deal. The members of the committee were a delight to be with. And the members of the library staff with whom we interacted were helpful, polite and conducted themselves in a way of which you could be proud. The presentation by the reference librarians on May 14 reminded me of an instance many years ago when a young lady, whose job it was to plot aircraft positions on a large map, was asked what she would do if she dropped her grease pencil. Without hesitating a second she said, "I guess I'd bite off the end of my finger and write with blood!" Your staff seemed to display a similar esprit de corps.

I don't know how the two of you feel about the continuing need for a subcommittee on automation, but I would recommend that you do continue it for at least a few more years and that you continue the practice (one not formalized) of having it a joint subcommittee with the Computer Science Visiting Committee. It seems to me that it deserves to be continued because it is concerned with an area of primary importance to the Libraries and to the University. And, it should be joint because its charter should be of concern to both visiting committees. Besides, if you make it a joint effort, it is then quite natural to ask Ron Wigington to be its chairman. If you don't decide to continue the "joint" practice, I'd recommend you ask Ron to join the Libraries' Visiting Committee so that he can chair the subcommittee for you. He brings a great deal of intelligence and a world of most pertinent experience to the position. And now he knows BALLOTS. Further, he's conscientious.

I am most pleased with the recognition which BALLOTS has received of late from external sources. Pleased for you and for Stanford. I also take some pride myself in an indirect way. A cohort of mine once said that one of my strong suits was recognizing and hiring good people--I consider hank Epstein to be an excellent example of whatever claim I do have to such

an attribute. Savor him. Hank should be teaching what he knows about the management of large computer projects in the Business School.

If I can be of further service to you or to the University, please holler.

Best personal regards,

Paul Armer

PA:mt

cc: Prof. Gene Franklin Al Veanor



STATE UNIVERSITY OF NEW YORK AT BINGHAMTON

Binghamton, New York 13901

Center for Integrative Studies School of Advanced Technology Telephone (607) 798-2871

Dear Sir,

I should like to ask your permission to reproduce the attached figure in a book entitled, "The Information Environment" to be published by Paul Elek Publishers, London, in 1975.

Full citation as to source, etc. will, of course, be given.

Thank you.

Sincerely yours,

John McHale

Director

Center for Integrative Studies

ohne meffale

JM/mrv

Note ERROR IN GRAPH labels Noted ON SAMPLE

provided that a complimentary copy of the book in which it is reproduced is sent to the grantor of permission to reproduce to a permission

Signature

5 JUNE 1975

PAUL ARMER 105 Hillside ADE MENIO PARK, CA 94025

Date

Return to: John McHale

Director

Center for Integrative Studies School of Advanced Technology State University of New York Binghamton, NY 13901

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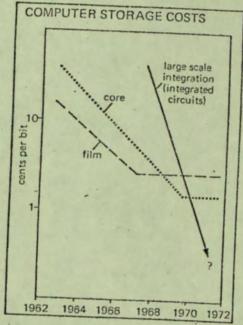
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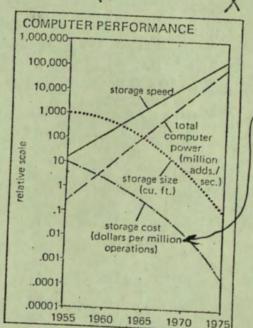
Developments in Computer Technology



Source:

COMPUTER STORAGE COSTS

"Systems for Remote-Sensing Information and Distribution," Vol. 8, Useful Applications of Earth-Oriented Satellites, NAS-NAC, Washington, 1969,



Source:

COMPUTER PERFORMANCE The Ecological Context, p. 58] "Computer Aspects of Technological Change, Automation and Economic Progress," P. Armer, RAND Corporation, November,

This SEEMS EXTRANEOUS ????

4 June 1975 Dr. Walter L. Anderson Associate Director for ADP Financial & General Management Studies Division General Accounting Office 441 G Street N.W. Washington, D.C. 20548 Dear Wally, Enclosed are: 1. A press release of April 25, 1975 from NBI (National Bankamericard, Inc.) about their "asset card" 2. Facts about Bankamericard--April 1975 3. Speech of D.W. Hock of NBI--March 25, 1975 4. Speech of D.W. Hock of NBI--October, 1974 The "asset card" is EFTS. The speech of March 25, 1975 contains an interesting summary of developments toward EFTS. The activities of Citicorp and Bank of America are especially interesting. It seems to me that among the EFTS developments you include in the draft letter to the President should be: 1. The ruling of the Comptroller of the Currency (as modified) about CBCT's. 2. NBI's announcement of their "asset card" 3. The move by the Federal Home Loan Bank Board "Qualified Vendors Sought to Assist ... in the Development of an EFT Switch Capability--March 1975" 4. Treasury's moves toward direct depositing of checks through ACH's. Also enclosed is a Computerworld report (6/4/75) on the ABA convention held recently in Florida. Let's keep in touch on this topic. I'll send along any material I get which I think you might not have received -especially the NBI releases. I'd appreciate your doing the same. I'm sending copies of the enclosures to this letter to your local office. Best personal regards, Paul Armer PA:mt cc: William Agnew

P.S. If I didn't mention it in Anaheim, there is a guy you should get to know. He is:

Chris Heller
Executive Office of the President
Office of Telecommunications Policy
1800 G Street N.W., 7th Floor
Washington, D.C. 20504
202-395-4876

He stays on top of EFTS developments for OTP.

P.S.S. Are you aware of the policies of Canada re EFTS?

OCDE

OECD

ORGANISATION DE COOPÉRATION ET DE DÉVELOPPEMENT ÉCONOMIQUES ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

DIRECTION DE LA SCIENCE, DE LA TECHNOLOGIE ET DE L'INDUSTRIE DIRECTORATE FOR SCIENCE, TECHNOLOGY AND INDUSTRY

Téléphone: 524 82-00

2, rue André-Pascal

Télex: 62.160 OCDE PARIS

75775 PARIS CEDEX 16

Télégrammes: DEVELOPECONOMIE

DSTI/ST/75/3203 3rd June, 1975

Near Paul,

I apologise for not having written earlier but since I just came back from holidays I just received your letter. Thank you once more for the help you offered and I am sure I can profit from it another time.

With best personal regards,

Yours sincerely,

Dieter Kimbel

Mr. P. Armer Center for Advanced Study in the Behavioral Sciences 202 Junipero Serra Blvd. Stanford, California 94305

June 3, 1975 Mr. Paul Nitze Suite 1500 1500 Wilson Boulevard Arlington, Virginia 22209 Dear Paul: It was a great pleasure having you here last month. We feel it was a valuable experience for both students and the faculty. Thanks again for making this time available to us here at Stanford. I believe you have already received the honorarium check in the amount of \$300. The Accounting Department at Stanford arranged to mail it directly to your home. George Quester at the Center for Advanced Study is arranging to have your travel and local expenses reimbursed. You should be receiving a check for this in the near future. I look forward to seeing you again at Aspen. Sincerely, John Wilson Lewis JWL:gb Vcc: George Quester

Paul:

Here is the streft gam woulded. Hope its not too long, Ful free to edit. Perhaps your should also mention Scheffler's new book (sorry-torsot the title) and Wiener's torthcoming book.

Bust as always.

Joe.

Joseph Weizenbaum, Israel Scheffler, Paul armer, Terrance Sandalow, Donald Kennedy, John R. Ylatt, Herbert Weiner, and (occasionally) others -- "The idea of <u>moderstanding</u> and its implications on the scope and limits of computer intelligence."

The POSTS "come" group of 1972/1973, initially organized by Weizenhaum and Scheftler, began its discussions on the general theme of the role played by metaphor in man's intellectual reconstruction of his world. Scheffler's concern with metapher arose out of his long-range procengation with the idea of objectivity, and weizenbannis from the grestions he was esting about the limits of machine (formalized) intelligence. These discussions soon led to general questions having to do with (among other things) brain and behavior (trumedy, Diemer, Matt), nothered and artificial languages and their semantics (Weizenham, Armer, Scheffer), reason and ambiguity in law and psychiatry (Wiener, Sandalow), etc.

even if they in a certain sense, can pertorn them sentences (correct grammadical ses sentences). Limits compared ought not to be put to autain tasks Respect to centain domains of thanglet and action. phenomena) must closers be notimable grounded and from that are organismt is made that realization of "intelligence" -- elestrops their abstract compling of languages to the rect world -- here the on the expressibility of andificial (composition) of symbols on its alphabet anstitute byell admissible to all models (of intelligence or any other real world character, and 2) the theoretical terms fundamental is itself a game whose rules determine what strings languages derive from the factor that 1) the to heliver from one moment to the next. a language Rower and Human Recoon, Freeman + 10, San Francisco, in metaphor. From this basing, the book durises "language". An abbactive procedure is a set of roles draws beauty on those discussions (Compather that tell a player of an abstract same precisely how in fress). The book coresulty develops the idea of the the Sundamental Ideas "estadive procedure" and modern compreher as a "universal" madine From Winyambann has since campleted a book that Examples from law and psydiatry are sisen.

The book also discusses the computer as a metaghor in its own right. It demanstrates a constitue of the work of artificial intelligence researchers, system of americists (forrester), and behaviorists (Stimmer) and generally points to the simplisticity of the world views injundered by their common epistomological assumptions.

1133 AVENUE OF THE AMERICAS NEW YORK, N.Y. 10036 (212) 265-6300



Association for Computing Machinery

May 28, 1975

Reply to:

4 Inningwood Road Ossining, NY 10562

TO: Jean Sammet

FROM: Dan McCracken

SUBJECT: Ellis Horowitz as possible SIGCAS Chairman

I mentioned this to Dick Brandin, but very hurriedly, so perhaps it wouldn't hurt to put something on paper.

Ellis has a Ph.D. in something like Computerability Theory from Cornell in 1970, give or take a year. He spent a couple of years as an instructor at North Carolina and is now an assistant professor at USC. I first met him at Cornell because he was chairman of the student chapter there so he has an ACM participation record going back at least that far. He is a member of the Austing Committee. He is working on a book on data structures with a guy at Minnesota. He bookshelf in his office at USC displays a nice breadth of interests in both technical and societalimpact areas. I find him to be personable and easy to get along with.

I have no knowledge of his effectiveness as a committee member or SIG chairman; being thirtyish, perhaps he has not had too much opportunity for this kind of experience. I see no reason whatever to hesitate on that ground, however, since everything else seems to be favorable.

Paul Armer originally suggested the possibility that Ellis might be a good candidate for this position. Neither of us talked with him about it, however, which would have been inappropriate, and I have no idea whether he would be interested in the job. Naturally, also, I have no idea of who else may be under consideration, and I have no emotional investment in the idea that Ellis should be chosen.

CC: Paul Arme-Done Brown

Nancy Foy DRUID COMPUTER LIMITED 8 PELLERIN ROAD, LONDON, N.16

Answerd by aprogramme

Telephone: 01-249 1177

17 May 75

Dear Paul,

How lovely to get your letter just as I was recovering from the move (last week) sufficiently to contemplate my pile of "things to be done" (which has for too long included the material for a superb 'Armer article'...trouble is, I had a minor falling-out with Judy Bloor last autumn, and don't really want to do it for Computing until or unless there is a falling-in again, which won't happen until £14.03 owed me arrives, which is the real reason I haven't done the article heretofore.)

Anyway, we're moved, and it's time to either settle things with Judy or find some other journal where the article would be appropriate -- perhaps 'Data', the Danish journal, which is now doing some nice articles (I interviewed IBM's Kap Cassani for

Data, and liked the way they laid out the result).

The move has been harrowing, but it has also been one of the most rewarding experiences I've ever had -- my OWN house, and one I cans stay in forever (if I like), after 20 years of moving on average once a year, for other people's reasons (and the past nine years a cheos of 9 furnished flats). Right now (Saturday morning) the phone man is happily drilling a hole in the woodwork so I can have the downstairs extension, plus the meter (for billing DTM for all those expensive calls to France...and my dear but long-winded boss Angie) plus the Pye Call-Ball (more elegantly or euphemistically named 'Spheri-Call' in Europe -- for dialing from a pushbutton pad and remembering up to 18 digits for at least 10 calls) -- all on my desk! After phones in the loo, the living room, everywhere BUT my desk for so long I can't remember what it's like not to have to dash into some other room to answer the infernal machine. The hole in the woodwork is MINE, and (like the nascent graffiti on the bathroom wall) the phone on the desk is a statement of ownership, personship...I'm not sure what-all, but it's nice!

It's a funny neighborhood -- really Cockney, and they've seemingly never heard a California accent before -- but there's a tremendous sense of community, and the curiosity, combined with our own friendly sense of permanence here, has made us already welcome members. There's a real old-fashioned (cheap!) street market down the road, and I'm getting to know all the shopkeepers and a few other residents of Pellerin Road. Next time you visit -- providing you're a devotee of jellied eels (which I'm not -- but I'm a devotee of jellied eel SHOPS), I'll take you to one of London's last real ones...run by an old ladye (?) who socks away two bottles of gin every evening as she doles out the eel slices.

Anyway, I shall get down to a draft of an Armer article -- for <u>Data</u> with your permission -- and ship it off to you in June. (I'm off to Sweden again next week for about 10 days, mostly related to shop-floor participation).

As you can by now presume, DTM did not see fit to import its European correspondent for a california conference, though I'm likely to get invit@d for the editorial of 25-29 conference in October or so (my luck being what it is, it will probably be in the four weeks of Sept-Oct I plan to spend on Corfuw with mother -- she sculpts while I write books, and it works beautifully, though we've never done it without kids before.)

I'm forwarding your photo to Irene -- whose last name I forget, but she works for Erik on Data, and I'll see them both next week. As to mine - more than enough said. I've (thank god) lost a few pointds since then, and will store it in the (horribly large) box of past history. Keep the ones of the harbor to remember a nice visit by -- I have about two dozen of hydrofoils pulling out, or the big boat embarking. That's where I'm going back to Friday, to launch the cases (with 50 top managers) I was just beginneing to write when you were with us.

Bless you for the kind words about the book... I gather the US version is selling like hotcakes, which delights me, especially because half a dozen publishers there turned it down for being "too international".

Now I have to move to make room for the phone man. Let me know when you're coming that white 239 8 3.4 12 11 promise home made tortillas!

Director: Nancy Foy (U.S.A.)
Registered Office: 100 Chalk Farm Road London NW1

16 May 1975

George E. Brosseau, Jr. ional Science Foundation O G Street, N.W. nington, D.C. 20550

r George:

Enclosed is a copy of the draft of our annual report 1973-74.

You have any comments or reactions, I'd appreciate hearing from

We'll be casting it in lead in another two weeks.

Best regards,

Paul Armer, Coordinator POSTS Program

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16 May 1975 Dr. Ronald L. Wigington Director, Research & Development Chemical Abstracts Service Ohio State University Columbus, Ohio 43210 Dear Ron: Sorry for the long delay in getting this book to you. Dave Weber phoned me last week and roused me from my stupor. Enclosed is your draft with my modifications thereon so you can see what changes I made. I don't think that I did any violence to the previous draft. SCIP preferred that we use the expression "bulk discount" rather than "volume discount" and make it clear that it was available to all. A proposal didn't go to the U.C.Bib Center; they were included in the proposal to the California State Librarian. At the bottom of the third page, I altered factor number two because once the MARC tapes are read onto discs, the file and index building does not involve tape processing. Veanor was spooked by point 3 of page four, so I added a paranthetical comment. I also updated the last paragraph on that page. Also enclosed is a finished version of the report plus a two page update which was put together last week. I think it's uncontroversial data rather than interpretation or recommendation. There is some remarkably good news in that update. The biggest and best news item is that the University of California Library Council has decided that BALLOTS should be used at all their campuses. A \$350,000 grant from CLR was also good news. And SCIP responded to pressure (I believe the draft of our report had something to do with that.) and reduced rates for batch service on week-ends when the MARC data base is built. If you feel I did vilence to the report, please holler. Thanks so much for all the effort you put into this. Best personal regards. PA:mt Paul Armer

12/4/74



TO: Visiting Committee to the Stanford University Libraries

FROM: Paul Armer And Ronald L. Wiginston

SUBJECT: Report of the Automation Subcommittee

Because of overlapping interests, the Automation Subcommittee has had as one of its members a representative of the Computer Sciences Advisory Committee. Dr. Ronald L. Wigington, Director of Research and Development for the Chemical Abstracts Service, has recently joined the Subcommittee as the representative of the Computer Sciences Advisory Committee. In addition to his background at Chemical Abstracts Service, Dr. Wigington headed a National Academy of Sciences panel which looked at library automation. The panel's report, entitled "Libraries and Which looked at library automation. The panel's report, entitled "Libraries and Information Technology--A National Systems Challenge," appeared in 1972. Thus, Information brings a wealth of knowledge and experience to the Subcommittee.

We think it worthwhile to repeat here the first finding (out of seventeen) of the panel:

 The primary bar to development of national level computer based library and information systems is no longer basically a technological feasibility problem. Rather it is a combination of complex institutional and organizational human-related problems and the inadequate economic/value system associated with these activities.

Progress continues on BALLOTS. In July and August almost three-quarters of the total titles catalogued by the library were catalogued through BALLOTS. Considerable machine trouble plagued all users of the IBM 360/Model 67 in August and on two occasions major file restorations of the BALLOTS files were necessary. While the machine trouble was an operational nuisance, we consider the successful restorations to be a significant test of the systems capability to cope with destruction of its files—the restoration process worked.

BALLOTS is an integral part of library operations—some aspects of it have been in productive use for two years. Because of BALLOTS, the library has reorganized their activities in book purchasing and cataloging and are planning a major physical integration of these activities. The library will soon implement major physical integration of these activities. The library data bases, CRT terminal access at the reference desk to a variety of library data bases,

Physical changes in the utilization of library space have been made, staff has been reduced and retrained, and the manual workflow for processing has been altered. In fact, an operational commitment has been made to BALLOTS as a major segment of library operations and backing away from it now would be costly in reestablishing an alternate approach, even the old way of doing things. These costs would be in remodification of building facilities, reacquisition and retraining of staff, and reestablishment of old work flows.

Major personnel changes within the BALLOTS project have taken place in the past year. Hank Epstein, formerly head of the BALLOTS project, was promoted to Associate Director (of SCIP-the Stanford Center for Information Processing) for Administrative and Library Computing Services just prior to our last report. Donn Martin has taken over Hank's previous position as head of the BALLOTS project.

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Four principal officers of the Council on Library Resources (including CLR's president, Fred Cole) visited BALLOTS July 30-31 for two full days. As a result of discussions during the visit, a follow-on proposal has been submitted to CLR for a grant to establish a BALLOTS based network. The proposal asks for \$350,000 for two years. Proposals for shared use of the BALLOTS system have been made to the California State Library, the University of California Bib-Center and San Jose State University. Discussions with WICHE (Western Commission for Higher Education) concerning a regional network are also underway.

The Computer Science Advisory Committee met October 13-15 and the opportunity was seized for br. Wigington and me to visit with Dave Weber, Allen Veaner, Donn Martin, Eleanor Montague, and Hanan Bell. We were impressed with the System Evaluation of Ballots performed by Mr. Bell this past Spring. We have some additional questions which we believe should be looked at but we feel his "audit" of BALLOTS was excellent.

Findings & Recommendations

Concerns about BALLOTS are usually discussed in three major categories; high operational costs, the question of dedicated vs. shared computational facilities, and the organizational arrangements appropriate for a consortium of users. Overall, however, the single issue is a judgment on the acceptability of operating cost versus the value of services delivered. The functional viability of using BALLOTS in library operations seems to have been well established.

Before addressing the facets of this issue and raising some questions, a general observation is in order. We do not believe that we identified any gaping holes in the conception or conduct of the project during our visit on October 15. This, we believe, speaks well for the project. We believe that BALLOTS is well thought out and well managed.

Operational Costs

With respect to high operational costs (of the order of \$400,000 to \$500,000 per year at the present time), the audit by Hanan Bell pointed out a number of improvements to BALLOTS and to the software on which BALLOTS is based, which would considerably reduce operational costs. Bell believes that total costs can be reduced significantly. At the most optimistic, an amount up to 50% reduction may be possible in computer resource usage; however, realistically, the potential improvement should be expected to be somewhat less than that. Moreover, the actual reduction in SCIP charges depends upon the details of application of the charging algorithms of the Campus Facility for their IBM 360/Model 67. Currently, a 14% "volume" discount is given to BALLOTS by SCIP. Whether that discount would continue if computer utilization were decreased was not discussed, but in estimating potential operating budget that could be a significant factor. The combination of a realistic expectation of improvement (i.e., not the most optimistic) and a loss or decrease of discount could reduce the potential improvement in computer costs to 25% rather than 50%.

The issue of pricing of computer services by SCIP is key in determining BALLOTS operational costs, but it is very complex. The computer is like a factory which produces many joint products. The imputation of common costs to the various joint products is purely arbitrary. Furthermore, one of the criteria for choosing a pricing algorithm is to shape the pattern of usage of the center, charging high for certain functions to discourage their use and low for other functions to favor specific applications. For example, a policy of no charge for small jobs less than a very small amount of compute time is an encouragement for beginning

A bulk discount, Available + utilized by BALLUTS

- The Sknuting of bulk Rate The mes use of the center. Extra high charges (for use of tape operations simplifies the manning and operation of the center. The granting of a volume discount to BALLOTS is a recognition that the existing pricing algorithm does not properly treat the class of usage represented by BALLOTS and/or that retaining BALLOTS on the SCIP system is valuable to SCIP in balancing their own budget. A limit of 10% of CPU capacity used by any one account is a constraint on a "free economy" to prevent one usage from swamping the community facility. (BALLOTS now represents about 5%.) Given the budgeting policy set by the University for SCIP, the center must distribute its costs across all uses in setting prices and we cannot say the pricing algorithms are wrong, only that they are unfavorable for BALLOTS operabulk tions in spite of the discount awarded. However, they do have such an impact on overall BALLOTS operating cost that BALLOTS must seek some way to reduce those costs even more than achievable through system efficiency tuning dome, i.e.,

RATES, attack pricing as well as utilization of resources.

Alternatives for reducing computer prices include:

- 1) Comparing off-campus service bureau prices with those of SCIP and if they would be lower for the same service, switching some or all of the processing off-campus. There are at least two things that would contraindicate this move. BALLOTS is dependent on unique Stanford-produced operating system software and operating totally from an off-campus facility would require transfer of that software, a costly process, even if acceptable to the offcampus facility. Second, using an off-campus facility means out-of-pocket expense to Stanford in contrast to the administrative transfer of expense for using SCIP.
- 2) Setting up a dedicated facility for BALLOTS. This is an often-mentioned alternative. However, we found no evidence that such an alternative had actually been studied sufficiently to establish all the technical requirements to be met to carry it out and to establish the total set-up and operating costs involved. If the use of BALLOTS were to expand considerably within and outside Stanford and the 10% CPU limit on SCIP approached, this may become a viable alternative, but it would have to be studied in considerable detail before making such a judgment. More comments on this aspect are made later in this report.
- balk Rates 3) Negotiating a better discount from SCIP. The principle of a discount is already established. Particularly If off-campus or dedicated facility prices are less and there is policy pressure to keep the computing service on-campus, BALLOTS should be an a strong negotiating position. If alternatives other than SCIP are not economically favorable, the negotiating position is reversed. This approach is simply one of policy and price negotiations and can drastically change the picture.
- If a factor of two improvement could be achieved in computer charges to BALLOTS, by a combination of efficiency tuning and price reductions, Al Veanor believes that such a reduction might almost make the system economically feasible for Stanford (NOW A third)

In our report of a year ago, we emphasized that about half of the current operating cost is associated with the processing of the MARC tapes received from the Library of Congress. It appears that this high cost is associated primarily with two factors:

The complexity of building the highly indexed BALLOTS retrieval files.

The discriminatory pricing in the SCIP's pricing algorithms for magnetic tape. Not

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For this specific component of cost we suggest the following be examined:

- 1) In the examination of operating efficiency by Mr. Bell, the need for all the various retrieval indexes to the files was taken as a given. We believe that the utility of each of these should be questioned and examined and an attempt be made to judge the costs and benefits of each in providing effective library operations and services. Perhaps significant processing cost savings could be made by eliminating those of marginal utility. This could become particularly important as the utilization and size of BALLOTS files expands. The SPIRES file design may become inefficient for very large files and this should be evaluated.
- 2) Perhaps this specific set of batch processing operations could be done on an off-campus service bureau much more cheaply and the results loaded into the SCIP facility for on-line usage. This would also minimize the software transportability problems and costs in that the entire BALLOTS system and its supporting software would not have to be exported.

 (And It is Reassance to Raise only)
- 3) It is heresy to raise the question halve we wonder whether it is now cheaper to build BALLOTS files from MARC tapes (that fraction now being 25%, we understand) than to input to BALLOTS from Library of Congress catalog cards for that fraction of the material. With the high computer costs for this portion of the processing, which would increase as more material is available from MARC, it actually may be unfavorable for Stanford to use them. This is not a criticism of MARC, which is intended to and should improve overall national economics of cataloging, only of the costs resulting from the way Stanford is processing them. Also, the costs and delays of holding books to await the arrival of MARC records for them should be a part of this assessment. With improvements in volume and timeliness of MARC records and in the costs of processing them into the BALLOTS system, operating cost savings and more reliable cataloging should accrue by using MARC. The question here is what is the breakeven point for Stanford?

Frequently, the specter of OCLC comes up as an alternative to BALLOTS, and it seems to be unduly feared by the BALLOTS staff. OCLC is an excellent accomplishment and is now gaining widespread attention and use. We are not aware, however, that a meaningful comparison of BALLOTS and OCLC has been made with full consideration given to the full range of services provided by each. Our impression is that BALLOTS is much more comprehensive in retrieval services. Whether or not some use of OCLC could Cavorably offset some aspects of preparation of retrieval files for BALLOTS type service is now unknown. Such a determination would be very complex and we caution against making a judgment either way on superficial grounds.

It must also be realized that there does not exist an unlimited capability on the IBM 360/Model 67 to handle additional users—at times there already exists a problem with the length of time that it takes to get a response to an inquiry at a terminal. This is not to say that BALLOTS swamps the system but rather that BALLOTS plus all other current utilization can cause sluggish response. All proposals from BALLOTS currently outstanding are for feasibility studies and pilot operations and do not contemplate multiple users in full production. All proposals currently outstanding will add eight terminals and six print stations to the system. If these explorations lead to full expansion of usage, considerably more computer capacity on or off campus will be required for responsive service.

Present planning by SCIP for supporting BALLOTS calls for the eventual transfer of the BALLOTS workload to SCIP's IBM 370/Model 168. However, the existing schedule for transferring work to the Model 168 runs through calendar 1975 and

BALLOTS EARly IN 1976

BALLOTS is not now on the schedule. It is not clear whether there will be sufficient capability remaining on the Model 100 to manufe the moved to 10ad, much less an expanded set of users. Alternatively, as load is moved to 5754 improve. However, we are not aware of a quantification of this possibility.

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Dedicated versus Shared Facilities

. We have little new wisdom to put forth on this issue. Given that the Stanford Library is the sole user of BALLOTS, then a dedicated facility is probably not a reasonable alternative. But we can imagine any number of scenarios involving more Stanford and/or outside users for which a dedicated facility might be economically feasible and/or politically necessary (in the case of outside users).

We have previously mentioned that the IBM 360/Model 67 does not now have the capacity (given the balance of its utilization as being fixed) to handle a large expansion of BALLOTS. In view of the negotiations now going on with several potential users, we believe that it is imperative that plans be drawn up for handling the spectrum of possible utilization which may come about. Included among the possibilities should be one which faces the question "What is the set of conditions (cost is probably the chief factor) under which Stanford would be willing to go it alone and by when must those conditions be met?" Similarly, "What level of usage is required to support a dedicated facility?"

As noted earlier, the economic judgment of dedicated versus shared facilities requires a very complete specification of facilities, operating support, and load to be handled. We are not aware that a sufficiently complete analysis has been done to be able to make that judgment.

Organizational Considerations

We do not believe that exporting BALLOTS as an isolated operation is an attractive means of generating revenue to support the BALLOTS project. That is, the cost of making BALLOTS itself exportable is so large that it would take a fairly large number of purchasers of the software to make it profitable. Not only would the setup costs be high, but the continuing maintenance of a system dependent on unique Stanford operating systems would be expensive. However, the marginal cost of "exportability of service" may be advantageous for a consortium which makes a long term commitment for use of shared central facilities.

To the degree that there is a large component of fixed cost in setting up and constructing the files for a BALLOTS operation, increasing the base of use of the Stanford BALLOTS system improves the payoff/cost balance. As noted earlier, the costs of routine processing of MARC and other input into those files is a large component of cost. It is this situation that leads to the exploration of establishing a consortium of use of those facilities with a number of outside organizations.

We believe that there is considerable risk associated with counting on a consortium to save the financial day in the short term. That is not to say that we are against the idea of a consortium. On the contrary, we suspect that BALLOTS will be regarded as too expensive for the Stanford University Library alone given the present on-campus computer service pricing. And we believe that consortia will probably become a way of life for academic libraries. But it may take a while for the lessons of cooperation to be learned .- in the past, many consortia have fallen

apart once the outside funding of the joint effort ceased to exist. We are in favor of consortia—but we worry about counting on unproved viability. Stanford must thus have a set of conditions under which it is willing to go it alone and a plan for what happens if the hoped for consortium falls apart and those conditions are not met. These conditions must be arrived at soon since a decision point may arise if potential outside users cannot come up with development funds and grant funds for development cannot be found.

With respect to the marketing of the use of BALLOTS, we repeat our recommendation of a year ago that the President and/or the Provost of Stanford involve themselves in arranging alliances with other major organizations for joint operations.

Not only should users outside the Stanford family be sought, but users within the family will have a similar impact on cost-effectiveness. We understand that the Law Library plans to use BALLOTS once they are in their new building and that the Medical Library is considering its use. In view of BALLOTS present level of operation, we believe that University administration should ask the Coordinate Libraries to either adopt BALLOTS or explain why they do not want to do so. They may have good reasons not to adopt BALLOTS-but if they do, we should know what they are. Getting the Hoover Institution and the Business School libraries onto BALLOTS would not only spread the fixed costs over more users but make the various data bases more complete and useful to the library user. Some savings from the elimination of duplicate buying should also be realized.

If the Stanford administration is to be consistent about managing Stanford facilities and services on a "business balance sheet" basis in an artificial economy and if it is to favor integrated and centralized resources, as in the case of computing services through SCIP, then it should also apply policy and administrative direction to the same ends in the provision of library support services on the Stanford campus to the extent that true economies can be achieved.

Also, Stanford must decide on the requirements for type and responsiveness of library support services to faculty and students suitable for a leading university like Stanford. Failure to lead in this regard will eventually have a degrading effect on the stature of Stanford relative to other universities and a lessening of the quality of its research and graduates.

The "value" of library and information services has never been successfully quantified. The decisions on the value of such services, in terms of what the institution will pay for them, must, in large part, be qualitative and arbitrary. In these times of contracting budgets it is doubly difficult, even unpopular, to try to establish that an increased cost for a category of activities is acceptable. But, to use an overworked phrase, "it is all a matter of relative priorities". If, after tuning system efficiency and seeking other means to reduce costs, they still remain higher than the existing breakeven baseline, Stanford may have to decide whether it wants to pay more now for BALLOTS-type service or to retreat back to previous methods and reduced service that in the long run do not have favorable implications.

Summary

- 1) BALLOTS is well thought out and well managed.
- 2) A number of operational tuning opportunities exist. These should be exploited to the maximum, but tuning alone probably cannot get beyond the breakeven point.

- 3) The charging algorithm used by SCIP is part of the reason for the high operational costs of BALLOTS and we suggest that the BALLOTS staff estimate what it would cost to process their work (especially the file building activity) in the local marketplace. If this study shows that SCIP's rates are comparatively high, then negotiations with SCIP for lower rates should take place.
- 4) In view of BALLOTS present level of operation, we believe that University administration should ask the Coordinate Libraries to either adopt BALLOTS or explain why they do not want to do so. They may have good reasons for not doing so--but if they have, we should know what they are.
- 5) In view of the negotiations now going on with several potential users, we believe that it is imperative that plans be drawn up for handling the spectrum of possible utilization which may come about. Included among the possibilities should be one which faces the question "What is the set of conditions under which Stanford would be willing to go it alone and by when must those conditions be met?" Part of this planning should include the question of what level of utilization of BALLOTS is required to make a dedicated facility a reasonable alternative.
- 6) With respect to the marketing of the use of BALLOTS, we repeat our recommendation of a year ago that the President and/or the Provost of Stanford involve themselves in arranging alliances with other major organizations.
- 7) Stanford administration may not be able to avoid making a judgment on what type and responsiveness of library support services Stanford must have and find a way to pay for, in maintaining its leading stature.

RLW:me

UNIVERSITY OF REDLANDS REDLANDS, CALIFORNIA 92373 • TELEPHONE (714) 793-2121 DEPARTMENT OF ENGINEERING 13 May 1975 Dr. Paul Armer Center for Advanced Study in the Behaviorial Sciences, Inc. 202 Junipero Serra Stanford, CA 94305 Dear Dr. Armer: Thank you for your recent note and the interesting packet of materials on the subject of computers in society. I regret to say that I am scheduled to give a final examination on Friday morning, May 23, so I will be unable to meet with you and Mr. Wessel. I understand the busy schedule you both have and since I will be heavily involved in our final examination period I do not see that there is any other possibility of our getting together. I greatly appreciate the information both you and Mr. WEssel have provided and should you come across any other materials you feel would pertain to my course, I would be grateful if you could call them to my attention. Thanks again for your help and I hope you have an enjoyable experience at the Computer Science Conference in Anaheim. Lawrence R. Harvill, Chairman Department of Engineering LRH: nh cc: Mr. Milton R. Wessel Suite 3720 45 Rockefeller Plaza New York, NY 10020

13 May 1975 Mr. Alvin Toffler 40 East 78th Street New York, New York 10021 Dear Al: First of all, I want to thank you and Heidi for all the time you spent with me. I learned a lot about the publishing and writing world-you were most helpful. And thank you for sending me the directory of the Society of Magazine Writers. Enclosed are several items: a review of Garry Brewer's book on computer modeling in city planning (Garry also knows a great deal about modeling in DOD. He is the man I suggested you contact at Yale, where he will be an Associate Professor in the School of Organization and Management beginning this summer.); a copy of a paper by Brewer on modeling; a copy of the paper Glushkov gave at IFIP last summer; and two reviews of The Eco-Spasm Report which you may not have seen. Also enclosed are two brief reports on "The Paul Principle." The longer one was intended for an audience of computerniks -- not the man in the street. Once again, thank you for your help, Sincerely yours, Paul Armer PA:mt



Mr. Paul Armer 202 Junipero Serra Blvd. Stanford, California 94305

Dear Paul:

Thanks for reading my release form for what it actually said, and commenting on it. After the prompting of your comment, I went back, and found there were a lot of important things which were not explicitly stated. Since some people will like to have them explicitly stated, you prompted me to create a long version of the release for those who do want to be especially careful. I'm sending it to you in case you'd like to use it instead of the other (whose weaknesses you so clearly identified).

Sincerely,

Incl as ILLIAM F. LUEBBERT

Chairman, AFIPS Computer History Project

20 Wilson Road

West Point, New York 10996

ORAL HISTORY INTERVIEWEE AGREEMENT (LONG VERSION)

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In view of the historic and scholarly value of the information involved, I hereby knowingly and voluntarily permit the American Federation of Information Processing Societies (AFIPS) and voluntarily permit the American Federation of Information Processing Societies (AFIPS) and voluntarily permit the American Federation of Information Processing Societies (AFIPS) and includes full use of any oral history interviews granted by mc. This release specifically includes full use of any oral history interviews granted by mc. This release specifically includes any interviews made as part of the joint AFIPS/Smithsonian History of Computing Project be granted all the same specifically desire that the AFIPS History of Computing Project be granted all the same rights already granted to the joint project and/or to the Smithsonian.

I understand that it is the goal of AFIPS (Within the funds and resources available for this purpose) to transcribe and rough-edit the taped interviews, submit the transcript to the interviewee for further editing, verification and (if appropriate) addition of cross references or explanatory notes so that the final transcript reflects as accurately as possible the interviewee's recollections and intentions when he made the interview. I understand that in-process transcripts prepared as a result of this agreement will be carefully marked "RAW SECRETARIAL TRANSCRIPT" and/or "TRANSCRIPTION NOT VERIFIED BY INTERVIEWEE" whenever either of these conditions apply. I understand that in the event of death or permanent disability of the interviewee, or in the event of a strong presumption of death or permanent disability created by failure to establish contact after multiple attempts to backtrack via former associates, professional societies, etc., AFIPS may call upon the most competent person available with relevant subject matter knowledge to perform a final verification rather than leave significant gaps in publishable information. Any material verified in this fashion will, if published, be clearly identified as to manner of verification and by whom verified. I further understand that I can eliminate this death/disability verification option by a specific request below. further understand that AFIPS does not intend to publish transcripts of my interview until

I understand that indexing, abstracting and cataloging of transcripts may occur before the total process indicated above is completed, and that items so derived will be keyed to indicate whether these activities have been performed from a final interviewee-verified transcript, a transcript verified by a person other than the interviewee under death/disability procedures, a roughedited transcript, a raw secretarial transcript or from the tape. I also understand that because of the extremely high costs involved in processing oral history materials it may not be possible to process all tapes unless generous external funding is available to AFIPS. I understand that to process all tapes unless generous external funding is available to funds, lack of skilled manin the event the total process is delayed or interrupted by lack of funds, lack of skilled manin the event the total process is delayed or individual researchers access to tapes and/or power or other cogent reasons, AFIPS will allow individual researchers access to tapes and/or power or other cogent reasons, to the contrary.

I further understand that any interview whose release is hedged with special release conditions which require special handling and care may not be processed as expeditiously as other similar which require special handling and care may not be processed as expeditiously as other similar interviews and (in order to save extra costs or possibilities of error which might violate the interviews and (in order to save extra costs or possibilities of error which might special conditions imposed) may have to be omitted from certain indexing, abstracting, cataloging or information dissemination activities which its historic value and information content might otherwise warrant.

I also understand that, although AFIPS will exercise due care to execute the provisions of this agreement faithfully, I shall have no claim for pecuniary damages in the event that tapes or transcripts are lost or for other errors or omissions which may occur in processing or handling of these materials.

Within the general conditions indicated herein and any specific additional conditions, if any,
I have added below, I specifically agree to allow free access (under such supplementary administrative rules as AFIPS may deem necessary and appropriate) to my interview by individuals or
trative rules as AFIPS may deem necessary and appropriate allow publication (in whole or in part)
institutions for scholarly or educational purposes and to allow publication (in whole or in part)
and/or dissemination (in whole or in part) via non-print media.

and/or dissemination (in whole or in part) vi- and/or dissemination (in whole or in part) vi- Pur special conditions, if any, here:	(Signature) PAUL ARMER
	(Printed or Typed Name) Ave
	(Best long-term Address - No & Street)
	(Address - City, State, Zip) (415) 854-3063 (Phone No Area Code + Exchange No.)
	(Phone no.

Dear Namy due finally gotten around to looking at the pictures I took last summer in Europe. Enclosed is one of you and one of the Swedish girl who the moment. Do you have a way of forwarding it to hel? What is her name? I took a lot of pictures of the horbor at Malmo from your pad - would you be interested in having them? Whatever happened to the intrinew of paper d Sent to you! be at NCC - you were at Chicago. I hope so - maybe we can break break in a Mexican restawant of guess of should say tortillar" not bread. I'll le at the Hyall House if your those. Don't know why lin telling you that - you'll never get this before leaving for California. enjoyelit. At did the Deternation review, as you well know. How is it selling? When will the Awvien edition be out! Rek freezed them but a few mouths Die seen is most interesting but her got to stop data ? gathering of publish. din still fighting the headacher, which gets in the way of wirting &



Department of Economics 1035 Business Administration Building Minneapolis, Minnesota 55455

May 9, 1975

Dr. Paul Armer
Center for Advanced Study in the
Behavioral Sciences
202 Junipero Serra Boulevard
Stanford, California 94305

Dear Paul:

Enclosed is my proposed revision of the write-up of my recent work. I would be glad to consider any changes in it if you feel my write-up sounds too technical or in any other respects unintelligible.

Also, please note that in reference 7 in the list of publications, "April, 1973" should be changed to "May, 1974".

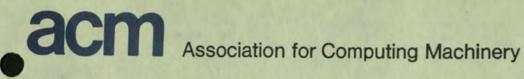
I do hope you get over your disk problem soon. All the best,

Sincerely,

John S. Chipman

JSC:kmf

cc: Pamela Gullard



JEAN E. SAMMET President

Reply to: IBM Corporation

(212) 265-6300

545 Technology Square

1133 AVENUE OF THE AMERICAS

Cambridge, MA 02139

NEW YORK, NY 10036

May 8, 1975

Jean E. Sammet

TO: Paul Armer

SUBJECT: Comments on Changes to the AFIPS Constitution

REFERENCE: Your letter to me dated May 1, 1975

Paul, the package of changes to the AFIPS Constitution is basically that - an integrated package for which one can't pick out one or two items and say yes, and others and say no. It turns out that there are a few exceptions, and one of them is the change in the nominating procedure which really has nothing to do with the changes proposed for membership. It could be dealt with separately.

Having said all the above, I would now address the substance of the proposed change, which I support completely. I personally object most strenuously to the concept that on the floor of a Board meeting an individual can be nominated for the Presidency (or any other office) and without any other consideration or discussion the Board is forced to vote. The fact that it has been done does not in my judgement make it correct; although I was not personally involved at the time I thoroughly disapproved of the procedure. If a Board member has a candidate he or she wishes to propose and can't get signatures from 15% of the people within 6 weeks of being told who the nominees are, then there isn't enough support for the candidate and the floor nomination comes close to being "frivolous". After all, 15% of the current Board is approximately 3-4 people depending on how you count. If there aren't that many people to support another candidate then why bring it up on the floor. As for the logistics, all the nominator has to do is call the people and ask them to write a letter to all the Board members.

As for a single candidate being unavailable the last two weeks before the meeting, then I suggest the election should be postponed.

With regard to nominating 2 people for each office, I generally favor that. I don't feel I have enough experience in AFIPS to know whether or not it is really a sensible provision. Hence I wouldn't push it but would probably support it if other people brought it up.

cc: R. Blue

G. Glaser

W. Holden

A. Ralston

P.S. 1) Copies of the correspondence with Augustine are attached to your copy only.

2) I don't really know about the costs of sending TOMS to all the ACM members. I

personally would not favor it, although if the Publications Board wanted to do it I wouldn't try to stop them. I think the circumstances with the CS are entirely different for reasons I don't want to go into here. In any case, the member subscriptions to TOMS seem to be coming in very well - and are ahead of the expectations.

Mr. Paul Armer Center for Advanced Study in the Behavioral Sciences, Inc. 202 Junipero Serra Stanford, California 94305

Dear Paul:

The four volumes of the EFTS report arrived yesterday following your call. I'm most appreciative and promise to at least try to have skimmed it before Anaheim.

I'm really grateful to you, Paul, for continuing to feed me this kind of information. I'm not directly in the "queue," and would otherwise miss much of what is so significant.

Warm regards,

Sincerely,

Mela

MRW:ck

12/4/74 8 May 75

TO: Visiting Committee to the Stanford University Libraries

FROM: Paul Armer and Ronald L. Wigington

SUBJECT: Report of the Automation Subcommittee

Because of overlapping interests, the Automation Subcommittee has had as one of its members a representative of the Computer Sciences Advisory Committee. Dr. Ronald L. Wigington, Director of Research and Development for the Chemical Abstracts Service, has recently joined the Subcommittee as the representative of the Computer Sciences Advisory Committee. In addition to his background at Chemical Abstracts Service, Dr. Wigington headed a National Academy of Sciences panel which looked at library automation. The panel's report, entitled "Libraries and Information Technology--A National Systems Challenge," appeared in 1972. Thus, Dr. Wigington brings a wealth of knowledge and experience to the Subcommittee.

We think it worthwhile to repeat here the first finding (out of seventeen) of the panel:

The primary bar to development of national level computer based library and information systems is no longer basically a technological feasibility problem. Rather it is a combination of complex institutional and organizational human-related problems and the inadequate economic/value system associated with these activities.

Progress continues on BALLOTS. In July and August almost three-quarters of the total titles catalogued by the library were catalogued through BALLOTS. Considerable machine trouble plagued all users of the IBM 360/Model 67 in August and on two occasions major file restorations of the BALLOTS files were necessary. While the machine trouble was an operational nuisance, we consider the successful restorations to be a significant test of the systems capability to cope with destruction of its files—the restoration process worked.

BALLOTS is an integral part of library operations--some aspects of it have been in productive use for two years. Because of BALLOTS, the library has reorganized their activities in book purchasing and cataloging and are planning a major physical integration of these activities. The library will soon implement CRT terminal access at the reference desk to a variety of library data bases, including BALLOTS.

Physical changes in the utilization of library space have been made, staff has been reduced and retrained, and the manual workflow for processing has been altered. In fact, an operational commitment has been made to BALLOTS as a major segment of library operations and backing away from it now would be costly in reestablishing an alternate approach, even the old way of

doing things. These costs would be in remodification of building facilities, reacquisition and retraining of staff, and reestablishment of old work flows.

Major personnel changes within the BALLOTS project have taken place in the past year. Hank Epstein, formerly director of the BALLOTS project, was promoted to Associate Director (of SCIP--the Stanford Center for Information Processing) for Administrative and Library Computing Services just prior to our last report. Donn Martin has taken over Hank's previous position as head of the BALLOTS project.

Four principal officers of the Council on Library Resources (including CLR's president, Fred Cole) visited BALLOTS July 30-31 for two full days. As a result of discussions during the visit, a follow-on proposal has been submitted to CLR for a grant to establish a BALLOTS based network. The proposal asks for \$350,000 for two years. Proposals for shared use of the BALLOTS system have been made to the California State Library and San Jose State University. Discussions with WICHE (Western Commission for Higher Education) concerning a regional network are also underway.

The Computer Science Advisory Committee met October 13-15 and the opportunity was seized for Wigington and Armer to visit with Dave Weber, Allen Veaner, Donn Martin, Eleanor Montague, and Hanan Bell. We were impressed with the System Evaluation of BALLOTS performed by Mr. Bell this past Spring. We have some additional questions which we believe should be looked at but we feel his "audit" of BALLOTS was excellent.

Findings & Recommendations

Concerns about BALLOTS are usually discussed in three major categories; high operational costs, the question of dedicated vs. shared computational facilities, and the organizational arrangements appropriate for a consortium of users. Overall, however, the single issue is a judgment on the acceptability of operating cost versus the value of services delivered. The functional viability of using BALLOTS in library operations seems to have been well established.

Before addressing the facets of this issue and raising some questions, a general observation is in order. We do not believe that we identified any gaping holes in the conception or conduct of the project during our visit on October 15. This, we believe, speaks well for the project. We believe that BALLOTS is well thought out and well managed.

Operational Costs

With respect to high operational costs (of the order of \$400,000 to \$500,000 per year at the present time), the audit by Hanan Bell pointed out a number of improvements to BALLOTS and to the software on which BALLOTS is based, which would considerably reduce operational costs. Bell believes that total costs can be reduced significantly. At the most optimistic, an amount

up to 50% reduction may be possible in computer resource usage; however, realistically, the potential improvement should be expected to be somewhat less than that. Moreover, the actual reduction in SCIP charges depends upon the details of application of the charging algorithms of the Campus Facility for their IBM 360/Model 67. Currently, a bulk discount, available to all SCIP users, is utilized by BALLOTS. Whether that discount would continue if computer utilization were decreased was not discussed, but in estimating potential operating budget that could be a significant factor. The combination of a realistic expectation of improvement (i.e., not the most optimistic) and a loss or decrease of discount could reduce the potential improvement in computer costs to 25% rather than 50%.

The issue of pricing of computer services by SCIP is key in determining BALLOTS operational costs, but it is very complex. The computer is like a factory which produces many joint products. The imputation of common costs to the various joint products is purely arbitrary. Furthermore, one of the criteria for choosing a pricing algorithm is to shape the pattern of usage of the center, charging high for certain functions to discourage their use and low for other functions to favor specific applications. For example, a policy of no charge for small jobs less than a very small amount of compute time is an encouragement for beginning use of the center. Extra high charges for use of tape operations simplifies the manning and operation of the center. The granting of bulk rates is a recognition that the existing pricing algorithm does not properly treat the class of usage represented by BALLOTS and/or that retaining BALLOTS on the SCIP system is valuable to SCIP in balancing their own budget. A limit of 10% of CPU capacity used by any one account is a constraint on a "free economy" to prevent one usage from swamping the community facility. (BALLOTS now represents about 5%.)

Given the budgeting policy set by the University for SCIP, the center must distribute its costs across all uses in setting prices and we cannot say the pricing algorithms are wrong, only that they are unfavorable for BALLOTS operations in spite of the bulk rates. However, they do have such an impact on overall BALLOTS operating cost that BALLOTS must seek some way to reduce those costs even more than achievable through tuning the system, i.e., attack pricing as well as utilization of resources.

Alternatives for reducing computer prices include:

1) Comparing off-campus service bureau prices with those of SCIP and if they would be lower for the same service, switching some or all of the processing off-campus. There are at least two things that would contraindicate this move. BALLOTS is dependent on unique Stanford-produced operating system software and operating totally from an off-campus facility would require transfer of that software, a costly process, even if acceptable to the off-campus facility. Second, using an off-campus facility means out-of-pocket expense to Stanford in contrast to the administrative transfer of expense for using SCIP.

- 2) Setting up a dedicated facility for BALLOTS. This is an oftenmentioned alternative. However, we found no evidence that such an alternative had actually been studied sufficiently to establish all the technical requirements to be met to carry it out and to establish the total set-up and operating costs involved. If the use of BALLOTS were to expand considerably within and outside Stanford and the 10% CPU limit on SCIP approached, this may become a viable alternative, but it would have to be studied in considerable detail before making such a judgment. More comments on this aspect are made later in this report.
- 3) Negotiating a better bulk rate from SCIP. The principle of a discount is already established. If off-campus or dedicated facility prices are less and there is policy pressure to keep the computing service on-campus, BALLOTS should be in a strong negotiating position. If alternatives other than SCIP are not economically favorable, the negotiating position is reversed. This approach is simply one of policy and price negotiations and can drastically change the picture.

If a factor of two improvement could be achieved in computer charges to BALLOTS, by a combination of efficiency tuning and price reductions, Al Veanor believes that such a reduction might almost make the system economically feasible for Stanford alone.

In our report of a year ago, we emphasized that about half (now a third) of the current operating cost is associated with the processing of the MARC tapes received from the Library of Congress. It appears that this high cost is associated primarily with two factors:

- 1) The complexity of building the highly indexed BALLOTS retrieval files.
- 2) SCIP's pricing algorithms

For this specific component of cost we suggest the following be examined:

- 1) In the examination of operating efficiency by Mr. Bell, the need for all the various retrieval indexes to the files was taken as a given. We believe that the utility of each of these should be questioned and examined and an attempt be made to judge the costs and benefits of each in providing effective library operations and services. Perhaps significant processing cost savings could be made by eliminating those of marginal utility. This could become particularly important as the utilization and size of BALLOTS files expands. The SPIRES file design may become inefficient for very large files and this should be evaluated.
- 2) Perhaps this specific set of batch processing operations could be done on an off-campus service bureau much more cheaply and the results loaded into the SCIP facility for on-line usage. This would also minimize the software transportability problems and costs in that the entire BALLOTS system and its supporting software would not have to be exported.

3) It is heresy to raise the question (and it is reasonable to raise it only in the context of Stanford "going it alone" with BALLOTS), but we wonder whether it is now cheaper to build BALLOTS files from MARC tapes (that fraction now being 25%, we understand) than to input to BALLOTS from Library of Congress catalog cards for that fraction of the material. With the high computer costs for this portion of the processing, which would increase as more material is available from MARC, it actually may be unfavorable for Stanford to use them. This is not a criticism of MARC, which is intended to and should improve overall national economics of cataloging, only of the costs resulting from the way Stanford is processing them. Also, the costs and delays of holding books to await the arrival of MARC records for them should be a part of this assessment. With improvements in volume and timeliness of MARC records and in the costs of processing them into the BALLOTS system, operating cost savings and more reliable cataloging should accrue by using MARC. The question here is what is the breakeven point for Stanford?

Frequently, the specter of OCLC comes up as an alternative to BALLOTS, and it seems to be unduly feared by the BALLOTS staff. OCLC is an excellent accomplishment and is now gaining widespread attention and use. We are not aware, however, that a meaningful comparison of BALLOTS and OCLC has been made with full consideration given to the full range of services provided by each. Our impression is that BALLOTS is much more comprehensive in retrieval services. Whether or not some use of OCLC could favorably offset some aspects of preparation of retrieval files for BALLOTS type service is now unknown. Such a determination would be very complex and we caution against making a judgment either way on superficial grounds.

It must also be realized that there does not exist an unlimited capability on the IBM 360/Model 67 to handle additional users--at times there already exists a problem with the length of time that it takes to get a response to an inquiry at a terminal. This is not to say that BALLOTS swamps the system but rather that BALLOTS plus all other current utilization can cause sluggish response. All proposals from BALLOTS currently outstanding are for feasibility studies and pilot operations and do not contemplate multiple users in full production. All proposals currently outstanding will add eight terminals and six print stations to the system. If these explorations lead to full expansion of usage, considerably more computer capacity on or off campus will be required for responsive service.

Present planning by SCIP for supporting BALLOTS calls for the eventual transfer of the BALLOTS workload to SCIP's IBM 370/Model 168. The existing schedule for transferring work to the Model 168 runs calls for the transfer of BALLOTS early in 1976. Alternatively, as load is moved to the Model 168, the ability of the 360/67 to absorb more BALLOTS load should improve. However, we are not aware of a quantification of this possibility.

Dedicated versus Shared Facilities

We have little new wisdom to put forth on this issue. Given that the Stanford Library is the sole user of BALLOTS, then a dedicated facility is probably not a reasonable alternative. But we can imagine any number of scenarios involving more Stanford and/or outside users for which a dedicated facility

might be economically feasible and/or politically necessary (in the case of outside users).

We have previously metnioned that the IBM 360/Model 67 does not now have the capacity (given the balance of its utilization as being fixed) to handle a large expansion of BALLOTS. In view of the negotiations now going on with several potential users, we believe that it is imperative that plans be drawn up for handling the spectrum of possible utilization which may come about. Included among the possibilities should be one which faces the question 'What is the set of conditions (cost is probably the chief factor) under which Stanford would be willing to go it alone and by when must those conditions be met?" Similarly, 'What level of usage is required to support a dedicated facility?"

As noted earlier, the economic judgment of dedicated versus shared facilities requires a very complete specification of facilities, operating support, and load to be handled. We are not aware that a sufficiently complete analysis has been done to be able to make that judgment.

Organizational Considerations

We do not believe that exporting BALLOTS as an isolated operation is an attractive means of generating revenue to support the BALLOTS project. That is, the cost of making BALLOTS itself exportable is so large that it would take a fairly large number of purchasers of the software to make it profitable. Not only would the setup costs be high, but the continuing maintenance of a system dependent on unique Stanford operating systems would be expensive. However, the marginal cost of "exportability of service" may be advantageous for a consortium which makes a long term commitment for use of shared central facilities.

To the degree that there is a large component of fixed cost in setting up and constructing the files for a BALLOTS operation, increasing the base of use of the Stanford BALLOTS system improves the payoff/cost balance. As noted earlier, the costs of routine processing of MARC and other input into those files is a large component of cost. It is this situation that leads to the exploration of establishing a consortium of use of those facilities with a number of outside organizations.

We believe that there is considerable risk associated with counting on a consortium to save the financial day in the short term. That is not to say that we are against the idea of a consortium. On the contrary, we suspect that BALLOTS will be regarded as too expensive for the Stanford University Library alone given the present on-campus computer service pricing. And we believe that consortia will probably become a way of life for academic libraries. But it may take a while for the lessons of cooperation to be learned—in the past, many consortia have fallen apart once the outside funding of the joint effort ceased to exist. We are in favor of consortia—but we worry about counting on unproved viability. Stanford must thus have a set of conditions under which it is willing to go it alone and a plan for what

happens if the hoped for consortium falls apart and those conditions are not met. These conditions must be arrived at soon since a decision point may arise if potential outside users cannot come up with development funds and grant funds for development cannot be found.

With respect to the marketing of the use of BALLOTS, we repeat our recommendation of a year ago that the President and/or the Provost of Stanford involve themselves in arranging alliances with other major organizations for joint operations.

Not only should users outside the Stanford family be sought, but users within the family will have a similar impact on cost-effectiveness. We understand that the Law Library plans to use BALLOTS once they are in their new building and that the Medical Library is considering its use. In view of BALLOTS present level of operation, we believe that University administration should ask the Coordinate Libraries to either adopt BALLOTS or explain why they do not want to do so. They may have good reasons not to adopt BALLOTS-but if they do, we should know what they are. Getting the Hoover Institution and the Business School libraries onto BALLOTS would not only spread the fixed costs over more users but make the various data bases more complete and useful to the library user. Some savings from the elimination of duplicate buying should also be realized.

If the Stanford administration is to be consistent about managing Stanford facilities and services on a "business balance sheet" basis in an artificial economy and if it is to favor integrated and centralized resources, as in the case of computing services through SCIP, then it should also apply policy and administrative direction to the same ends in the provision of library support services on the Stanford campus to the extent that true economies can be achieved.

Also, Stanford must decide on the requirements for type and responsiveness of library support services to faculty and students suitable for a leading university like Stanford. Failure to lead in this regard will eventually have a degrading effect on the stature of Stanford relative to other universities and a lessening of the quality of its research and graduates.

The "value" of library and information services has never been successfully quantified. The decisions on the value of such services, in terms of what the institution will pay for them, must, in large part, be qualitative and arbitrary. In these times of contracting budgets it is doubly difficult, even unpopular, to try to establish that an increased cost for a category of activities is acceptable. But, to use an overworked phrase, "it is all a matter of relative priorities." If, after tuning system efficiency and seeking other means to reduce costs, they still remain higher than the existing breakeven baseline, Stanford may have to decide whether it wants to pay more now for BALLOTS-type service or to retreat back to previous methods and reduced service that in the long run do not have favorable implications.

Summary

- 1) BALLOTS is well thought out and well managed.
- 2) A number of operational tuning opportunities exist. These should be exploited to the maximum, but tuning alone probably cannot get beyond the breakeven point.
- 3) The charging algorithm used by SCIP is part of the reason for the high operational costs of BALLOTS and we suggest that the BALLOTS staff estimate what it would cost to process their work (especially the file building activity) in the local marketplace. If this study shows that SCIP's rates are comparatively high, then negotiations with SCIP for lower rates should take place.
- 4) In view of BALLOTS present level of operation, we believe that University administration should ask the Coordinate Libraries to either adopt BALLOTS or explain why they do not want to do so. They may have good reasons for not doing so--but if they have, we should know what they are.
- 5) In view of the negotiations now going on with several potential users, we believe that it is imperative that plans be drawn up for handling the spectrum of possible utilization which may come about. Included among the possibilities should be one which faces the question 'What is the set of conditions under which Stanford would be willing to go it alone and by when must those conditions be met?" Part of this planning should include the question of what level of utilization of BALLOTS is required to make a dedicated facility a reasonable alternative.
- 6) With respect to the marketing of the use of BALLOTS, we repeat our recommendation of a year ago that the President and/or the Provost of Stanford involve themselves in arranging alliances with other major organizations.
- 7) Stanford administration may not be able to avoid making a judgment on what type and responsiveness of library support services Stanford must have and find a way to pay for, in maintaining its leading stature.

Update to the Report to the Automation Subcommittee, Visiting Committee to the Stanford University Libraries

Since preparation of the Subcommittee report in December 1974, the following events and changes have occurred:

- 1) The percentage of materials processed through BALLOTS now substantially exceeds 90% for new acquisitions and 85% for cataloging.
- 2) A major physical consolidation of Acquisition and Cataloging Departments has been accomplished successfully.
- 3) A \$350,000 proposal to the Council on Library Resources was successfully funded. This will enable BALLOTS to select a new CRT terminal, support the complete Library of Congress MARC II graphic character set, create a new and more economical file design for networking, and begin work on support of interlibrary loan service and the automated processing of serials, journals, and periodicals.
- 4) The California State Library contract was signed and work to implement PLAN (Public Library Automation Network) is moving along on schedule. This networking facility is expected to be operational early in the summer of 1975.
- 5) The University of California Library Council has recommended to the central University administration that BALLOTS be adopted as its processing system, citing BALLOTS as the "best on-line system" for its purposes.
- 6) Publicly funded library bodies are studying the draft of a Joint Powers Agreement which would establish CLASS--California Library Authority for Systems and Services, a public agency with which libraries in the state might contract for services. A significant problem in the Joint Powers Agreement is that Stanford, as a private institution, could not be represented on the Executive Board of CLASS. The feeling is that both CLASS and Stanford might obtain their services from a third body, such as a non-profit organization.
- 7) The proposal to create a Western Interstate Network under the auspices of WICHE has been reduced in scope to a design study, now funded.
- 8) With financing from the National Science Foundation, the Association of Research Libraries is conducting a study of interlibrary communication and network interconnection. Linkage of BALLOTS and the Washington Library Network will be studied as part of this effort.
- 9) SCIP announced a significant (one-third off) reduction in the batch service rates for week-ends. These services are used to build the MARC data base for BALLOTS.

- 10) It seems likely that the University will consolidate a variety of computer services under an IBM 370/168. This move will substantially increase BALLOTS networking capability, improve service, and lower unit costs. Conversion costs are estimated at one man year.
- 11) To provide more economical networking services in and around California and elsewhere, SCIP will furnish TYMNET interconnection services beginning this month.
- 12) Following a series of three presentations to the staff of the Hoover Institution, it is expected that Hoover will shortly install terminals for searching the BALLOTS data base: Following this experience, Hoover will be encouraged to install the full processing system.

8 May 1975 Mr. James Augustine, Jr. Norfolk City Schools 800 E. City Hall Avenue Norfolk, Virginia 23501 Every year since 1958, there has been a one-day invitational symposium Dear Jim: on a topic of current interest in the computing field. The next session will be held on Sunday, May 18, 1975, in Anaheim. For this meeting, we are inviting representatives of the professional societies, to discuss problems that are common to all the groups and to seek some solutions. Our selection of invitees is somewhat arbitrary, since we have learned that the assembled group must be limited in size in order to maintain the proper level of give-and-take discussion. We are especially anxious to have you in attendance because one of the agenda topics will be the relationship between ICCP and AFIPS. We are aware of your knowledge about and interest in this topic. Both Harris & Swearingen will be there. We will meet from 9:00 A.M. to 4:00 P.M. at the Quality Inn in Anaheim; this is the day preceding the NCC. We hope you will be there. Sincerely yours, Paul Armer Fred Gruenberger PA:mt

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CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES Telephone (415) 321-2052 202 Junipero Serra Boulevard . Stanford, California 94305 8 May 1975 Dr. G. Patrick Johnson National Science Foundation 1800 G Street, N.W. Washington, D.C. 20550 Dear Dr. Johnson, Enclosed are my comments on the draft of the A.D. Little report on EFTS. I appreciate the extension of time for preparing my review-it was a long report. I have reviewed it from the standpoint of the consumer with emphasis on privacy. In this regard, it is much better than the first phase report. My criticism is more one of emphasis than substance, although I am concerned that the report does not even mention the possible use of EFTS for surveillance. I hope the enclosed is of help. Sincerely yours, Paul Armer PA:mt cc: Martin L. Ernst George E. Brosseau, Jr. Joseph Coates

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

202 Junipero Serra Boulevard • Stanford, California 94305

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8 May 1975

Review of "The Consequences of Electronic Funds Transfer--A Technology Assessment of Movement Towards a Less Cash/Less Check Society" by Arthur D. Little, Inc., January 30, 1975

by

Paul Armer

This is a review of the document along the lines of "how it could be made better" rather than a review intended for publication. I have looked at the document from the standpoint of the consumer with emphasis on privacy.

I must say that this version gives the privacy issue much more attention than did the first phase report of the project (dated February 1, 1974). In fact, my criticism of the treatment of the privacy issue in the report is now mainly one of emphasis. In particular, I am concerned that the possible use of an EFTS for surveillance purposes is not mentioned in the report. I am enclosing a copy of my testimony before the Senate Subcommittee on Administrative Practice and Procedure on February 6, 1968, in which I touch briefly on surveillance. An EFTS will know where an individual is everytime he is involved in a transaction with the system. I was concerned about surveillance in 1968 and now that we've heard the "horror stories" of the disregard for civil rights by the FBI, CIA, IRS, Armed Forces, and local police forces, I am deeply concerned. It could happen here.

Therefore, I believe the surveillance issue should be mentioned in the "findings and recommendations" section (Chapter 2, page 8) and again in the impact on individuals (pages 16-20). I believe that privacy should be included as an issue (pages 8 and 9), if only in a form like "should there be pluralism in infrastructures as well as in services in order to provide some measure of decentralization to help with privacy and with the danger of having our economy tied to a single monolithic system?" I further believe that said dangers are not given enough emphasis in the report. If saboteurs or dissidents could put a monolithic system out of commission, our economy would be in great trouble. Sophisticated thieves could also wreck havoc with an insecure system.

Returning to the impact on individuals (pages 16-20), I believe there should be some mention of the access problem. This is covered in the body of the report, on page 207, where it is referred to as "disenfranchisement."

Under the redress section (page 19-20), I believe some mention should be made that in the event of a snafu in the record keeping, the individual may have a great deal of trouble fixing responsibility. Who is responsible for the record created by a purchase? The merchant, the merchant's bank, the EFTS infrastructure, or the individual's bank? Each may point the finger elsewhere. In the recommendations section (page 27) it says "... Some suggestions of areas for monitoring are stated, and then summarized, in later recommendations." Later on page 33 is included:

"the level of privacy being maintained and the degree to which illegal access and/or use of data bases may be arising."

I believe that this should be given greater emphasis and prominence. In particular, I believe that something should be said about the process of monitoring. For example, the monitoring should <u>not</u> be the responsibility of any organization having a stake in EFTS. This includes Federal agencies like the Federal Reserve Board which is not without bias.

Appendix F on "Privacy--and the Limits It May Set" appears to be the result of the thinking which appeared in the first phase report where the focus was on how the concern for privacy might impede the implementation of EFTS and not on how EFTS might impact privacy. Fortunately, this first phase report point of view does not appear in Volume I of the present report. I would naturally prefer to see an appendix in Volume II which does discuss the impact of EFTS on privacy. If that is not possible because of time constraints, then a statement should be placed ahead of the present Appendix F stating that while there is concern for the impact of EFTS on privacy discussed in several places in volume I, it was felt appropriate to also consider the impact of concerns over privacy on EFTS.

I also have a few nits to pick with the report. There is an attempt to introduce "cute humor" into the scenarios (for example, puns on NOW on page 172 and on WASP on page 198) which I think is inappropriate. In particular, references to the senior Senator from Massachusetts in the scenario on pages 185-202 add nothing to the scenario and just might annoy someone. Why ask for trouble?

Considering the number of pages, the binding used for Volume I is atrocious.

Figure 31 on page 48 needs an arrow going from the box labeled "Direct or On-Us Settlement" (it's a sub-box of "Correspondent Banks") to the box labeled "Drawer's Commercial Bank."

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"the level of privacy being maintained and the degree to which illegal access and/or use of data bases may be arising."

I believe that this should be given greater emphasis and prominence. In particular, I believe that something should be said about the process of monitoring. For example, the monitoring should not be the responsibility of any organization having a stake in EFTS. This includes Federal agencies like the Federal Reserve Board which is not without bias.

Appendix F on "Privacy--and the Limits It May Set" appears to be the result of the thinking which appeared in the first phase report where the focus was on how the concern for privacy might impede the implementation of EFTS and not on how EFTS might impact privacy. Fortunately, this first phase report point of view does not appear in Volume I of the present report. I would naturally prefer to see an appendix in Volume II which does discuss the impact of EFTS on privacy. If that is not possible because of time constraints, that while there is concern for the impact of EFTS on privacy discussed in several places in volume I, it was felt appropriate to also consider the impact of concerns over privacy on EFTS.

I also have a few nits to pick with the report. There is an attempt to introduce "cute humor" into the scenarios (for example, puns on NOW on page 172 and on WASP on page 198) which I think is inappropriate. In particular, references to the senior Senator from Massachusetts in the scenario on pages 185-202 add nothing to the scenario and just might annoy someone. Why ask for trouble?

Considering the number of pages, the binding used for Volume I is atrocious.

Figure 31 on page 48 needs an arrow going from the box labeled "Direct or On-Us Settlement" (it's a sub-box of "Correspondent Banks") to the box labeled "Drawer's Commercial Bank."

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES 202 Junipero Serra Boulevard • Stanford, California 94305 Telephone (415) 321-2052 8 May 1975 Dr. G. Patrick Johnson National Science Foundation RANN 1800 G Street, N.W. Washington, D.C. 20550 Dear Dr. Johnson, Enclosed are my comments on the draft of the A.D. Little report on EFTS. I appreciate the extension of time for preparing my review-it was a long report. I have reviewed it from the standpoint of the consumer with emphasis on privacy. In this regard, it is much better than the first phase report. My criticism is more one of emphasis than substance, although I am concerned that the report does not even mention the possible use of EFTS for surveillance. I hope the enclosed is of help. Sincerely yours, Paul Armer PA:mt cc: Martin L. Ernst George E. Brosseau, Jr. Joseph Coates

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

202 Junipero Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

8 May 1975

Review of "The Consequences of Electronic Funds Transfer--A Technology Assessment of Movement Towards a Less Cash/Less Check Society" by Arthur D. Little, Inc., January 30, 1975

by

Paul Armer

This is a review of the document along the lines of "how it could be made better" rather than a review intended for publication. I have looked at the document from the standpoint of the consumer with emphasis on privacy.

I must say that this version gives the privacy issue much more attention than did the first phase report of the project (dated February 1, 1974). In fact, my criticism of the treatment of the privacy issue in the report is now mainly one of emphasis. In particular, I am concerned that the possible use of an EFTS for surveillance purposes is not mentioned in the report. I am enclosing a copy of my testimony before the Senate Subcommittee on Administrative Practice and Procedure on February 6, 1968, in which I touch briefly on surveillance. An EFTS will know where an individual is everytime he is involved in a transaction with the system. I was concerned about surveillance in 1968 and now that we've heard the "horror stories" of the disregard for civil rights by the FBI, CIA, IRS, Armed Forces, and local police forces, I am deeply concerned. It could happen here.

Therefore, I believe the surveillance issue should be mentioned in the "findings and recommendations" section (Chapter 2, page 8) and again in the impact on individuals (pages 16-20). I believe that privacy should be included as an issue (pages 8 and 9), if only in a form like "should there be pluralism in infrastructures as well as in services in order to provide some measure of decentralization to help with privacy and with the danger of having our economy tied to a single monolithic system?" I further believe that said dangers are not given enough emphasis in the report. If saboteurs or dissidents could put a monolithic system out of commission, our economy would be in great trouble. Sophisticated thieves could also wreck havor with an insecure system.

Returning to the impact on individuals (pages 16-20), I believe there should be some mention of the access problem. This is covered in the body of the report, on page 207, where it is referred to as "disenfranchisement."

several places in volume I, it was felt appropriate to also consider the impact of concerns over privacy on EFTS.

I also have a few nits to pick with the report. There is an attempt to introduce "cute humor" into the scenarios (for example, puns on NOW on page 172 and on WASP on page 198) which I think is inappropriate. In page 172 and on WASP on page 198) which I think is inappropriate. In particular, references to the senior Senator from Massachusetts in the particular, references to the senior Senator from Massachusetts in the scenario on pages 185-202 add nothing to the scenario and just might annoy someone. Why ask for trouble?

Considering the number of pages, the binding used for Volume I is atrocious.

Figure 31 on page 48 needs an arrow going from the box labeled "Direct or On-Us Settlement" (it's a sub-box of "Correspondent Banks") to the box labeled "Drawer's Commercial Bank."

May 7, 1975

Dear Paul,

Concerning the report on the POSTS program, I am not quite sure who is the target audience. It strikes me as a factual and reasonably complete description of the activities under the program and the management philosophy under which the Center has operated it. I would have only two very minor editorial comments.

On Page 3, last paragraph, you refer to improving the "quality of the scholar". I suggest you use the word "scholarship". A behavioral sciences institute should not pretend to be able to measure the quality of people; hopefully it can judge the quality of social science research.

My more general concern is the flavor of the report if it is expected to be a vehicle for justifying the program to the NSF RANN project or preparing the ground for additional support from that source.

If the report has that purpose, it would do better to focus on the actual projects undertaken, the significance of the work, the uniqueness of the Center as a place for accomplishing it, and the benefits that we observe or anticipate from its completion.

The Center is understandably heavily committed to its own style of decision making to the intellectual mobility of its Fellows and to the emphasis on an atmosphere conducive to scholarship. I am sure the NSF appreciates the virtues of these principles. They are, however, a means to an end rather than an end in itself — at least from the

May 7, 1975 Page 2

government's point of view. Thus, in the absence of any evidence that the sponsoring agency seeks to threaten those principles, a report emphasizing the end results and benefits might be more appealing to a sponsor.

You must be the judge of the proper tone and emphasis.

Sincerely yours,

Lews

Dr. Paul Armer Center for Advanced Study in the Behavioral Sciences 202 Junipero Serra Boulevard Stanford, California 94305

SPEED LETTER®		
FROM PROF LAURENCE R HAROITTO PAUL ARMER		
HNIV of RedInuda Dept of ENGR CASBS		
Redlands, CA 92375 Zo2 Jun 21 8 5=220 Bly		
SUBJECT YOUR letter at 4/28/75 Stanford CA 94305		
-FOLD MESSAGE		
THE CONTERENCE		
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CONTIRM THESE ARRANGEMENTS by letter it you think there		
13 TIME OR BY MESSAGES LETT AT OUR HOTELS IT FOLL		
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CONCERNED WITH THE COMPUTERS & Society topic Also \$		
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cc: M. WESSEL		
Grayline "SNAP-A-WAY" FORM 44-912 3-PARTS		
WILSON JONES COMPANY © 1961 PRINTED IN U.S.A. RETAIN WHITE COPY, RETURN PINK COPY, TURN OVER FOR USE WITH WINDOW SAVELORS		

UNIVERSITY OF REDLANDS REDLANDS, CALIFORNIA 92373 • TELEPHONE (714) 793-2121 DEPARTMENT OF ENGINEERING 28 April 1975 Mr. Paul Armer Center for Advanced Study in the Behaviorial Sciences, Inc. 202 Junipero Serra Stanford, CA 94305 Dear Mr. Armer: By now you have received my original letter of a few months ago as well as copies of the correspondence I have had with Mr. Milton Wessel in New York. As indicated in my previous correspondence I am scheduled to teach a general course in the topic "Computers in Society" during our Interim semester in January 1976. Because of your and Mr. Wessel's interest in this topic, I would be greatly pleased if we could schedule a brief meeting during the upcoming Computer Conference to be held in Anaheim. I would greatly appreciate it if you would let me know as to the possibility of our getting together as well as those evenings that would be the best as far as your schedule is concerned. I appreciate whatever assistance you can provide me in preparing for this course and I am looking forward to meeting with you and Mr. Wessel sometime in Anaheim during the period of the Computer Conference. Lawrence R. Harvill, Chairman Department of Engineering LRH: nh cc: Mr. Milton R. Wessel Suite 3720 45 Rockefeller Plaza New York, N.Y. 10020

UNIVERSITY OF REDLANDS
REDLANDS, CALIFORNIA 92373 TELEPHONE (714) 793-2121
ENGINEERING AND COMPUTER SCIENCE DEPARTMENT
14 March 1975

Dr. Paul Armer Center for Advanced Study in the Behavioral Sciences Stanford University Stanford, CA

Dear Dr. Armer:

During the January Interim semester in 1976 I will be attempting to teach a course of general interest for our students on the subject entitled "Computers and Society." I have recently completed reading the book entitled Freedom's Edge by Milton Wessel of New York. This book was indeed enjoyable reading and helped spur me on in my desire to teach such a course on our own campus.

As you wrote the forward to Mr. Wessel's book, I am writing to ask if you would mind sending me any information you might have that would be useful in such a course. In particular I would be interested in any bibliographies you might have available and particularly any recommendations you would care to make. Also, I would be greatly interested in any films or other audiovisual type material of which you might be aware that would be useful in presenting to my class.

In this course I hope to briefly review the history and development of modern digital computers and spend some time surveying the wide spread utilization of computers in society today with particular emphasis paid to the problems and potentials of their expanded use in the future. From your comments in the forward to Mr. Wessel's book I gathered that you are particularly interested in this topic as well, so I hope you would have the time to send me a note with whatever recommendations you would have.

Your assistance is most appreciated and I am indeed looking forward to your reply.

Sincerely,

Lawrence R. Harvill

Chairman, Department of Engineering

LRH: nh

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

202 Junipera Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

1 May 1975

Miss Jean E. Sammet IBM Corporation 545 Technology Square Cambridge, Massachusetts 02139

Dear Jean:

I've recently seen the proposed changes to the AFIPS Constitution and Bylaws. The suggested changes to Article IV, Section 2 bother me. What are the objections to nominations from the floor? Are there concerns that someone will be so nominated frivolously? If so, surely the Board can be trusted to see through the situation and vote appropriately.

I personally would like to see a requirement that the nominating committee be forced to nominate two persons for each office. Whether or not that requirement exists, I would like to see nominations from the floor permitted. I don't feel quite so strongly if the nominating committee must put up two persons per office, but I think it's critically important to permit nominations from the floor if they are allowed to nominate just one person per office.

The proposed wording leaves AFIPS hung up if a single candidate becomes unavailable in the last two weeks before the meeting. Further, nominating committees are small and may make errors. If the Board believes they have made an error, the Constitution should not make it difficult for the Board to do something else. I maintain that getting signatures from 15% of the Board members two weeks prior to the election is difficult, due to the geographical spread of the membership. Thus, I'd settle for prohibiting nominations from the floor if petitions could be filed right up to election time. Once you get the Board members in the same place, getting signatures becomes a great deal easier.

cc: W. Holden

G. Glaser

A. Ralston

R. Blue

Sincerely yours,

PA:mt

P.S. 1) Your memo of February 27 to James Augustine, Jr. cites a memo of his dated February 4 and a memo of yours to him dated February 7. Would it be possible to send me copies of them?

2) IEEE had the good sales sense to send a free copy of the first issue of Transactions on Software Engineering to all of their members. Is it too late or too expensive to do the same with TOMS? If the answer is too late but not too expensive, it could be done with the next issue.

1 May 1975 Mr. Ricardo A. de Campos Saur Comissão de Coordenação das Ativadades de Processamento Eletrônico Av. Pres. Antonio Carlos, 375-GR 613/15/17 20.000 Rio de Janeiro, BRASIL Dear Ricardo: I'm sorry that I didn't get to see you in Stockholm. I'm even sorrier, for your sake, that you didn't make it there -- the meeting was excellent. And I'm very pleased that you were pleased with George Glaser. He is bright, personable, and a very delightful human being. Re your meeting in August, the subject and the time seem perfectly okay at the moment. But can I put off a final answer for another 4 to 6 weeks? There is a pretty good chance that I will be appointed to our National Commission on Electronic Funds Transfer Systems and I don't know what its schedule will be. Hopefully, the ambiguity will be removed before very long. Do you know the exact dates as yet? I see Rod Frederickson periodically. As you know, he now works for the RAND Corporation in Santa Monica. Best regards, Paul Armer PA:mt

1 May 1975 Mr. John K. Swearingen Subcommittee on Computer Services 305 Russell Office Building U.S. Senate Washington, D.C. 20510 Dear John: I want to apologize for having to leave the meeting before it adjourned last Saturday. Somehow, I had gotten the idea that the ICCP practice was to adjourn by noon on Saturday. And my experience at the January meeting reinforced that belief -- we did adjourn before noon. Consequently, I had agreed to meet a visitor from the USSR at Stanford late Saturday afternoon and had to leave the ICCP meeting at 1230. It seems to me that it would be a good idea to include in the meeting announcement a statement of how long you want the participants to plan on devoting to the meeting. Like, for example, "Don't make reservations to leave prior to 5 P.M." Another thought: I'd like to see the name of the society represented in the minutes of the meeting where the attendees are listed, I look forward to seeing you in Ansheim. Best regards,

PA:mt

cc: Fred Harris

1 May 1975 Professor Robert B. Eckhardt College of Liberal Arts Department of Anthropology The Pennsylvania State University University Park, Pennsylvania 16802 Dear Professor Eckhardt: Thank you for your letter of April 22. First of all, please note my correct address on the letterhead. The Palo Alto and Stanford post offices got together and delivered your letter to me, but it took awhile. There is no way that I could meet a June 1 deadline for a manuscript. And while I believe I do have something to say on the impact of computer technology on society, I do not feel that I could deal with the impact on I'm sorry that I cannot help you. Considering the deadline, I can't recommend someone else. Sincerely yours, Paul Armer Fellow PA:mt

THE PENNSYLVANIA STATE UNIVERSITY 409 SOCIAL SCIENCE BUILDING UNIVERSITY PARK, PENNSYLVANIA 16802 Area Code 814 College of the Liberal Arts Department of Anthropology April 22, 1975

Dr. Paul Armer Behavioral Sciences Institute Palo Alto, California 92602

Dear Dr. Armer:

The Journal of General Education is devoting its Fall 1975 issue to articles on the topic of science and values. JGE is a quarterly journal which promotes the exchange of ideas among members of different fields. Most readers are college and university faculty members; not all are in scientific fields.

Herbert A. Simon of Carnegie -- Mellon University has suggested that if you have time you would be able to write for us an interesting piece on the impact of computer technology on society and its values.

If you would like to write an article for inclusion, we would need your manuscript (about 8-20 pages of typescript) by June 1. We would return an edited version shortly afterward for your approval.

I hope that you can do this, and look forward to your reply.

Sincerely yours,

865-2509

Robert B. Eckhardt Co-editor, JGE

Lobert C. Edhardt

RBE / aw

1 May 1975 Miss Jean E. Sammet IBM Corporation 545 Technology Square Cambridge, Massachusetts 02139 Dear Jean: Per the instructions in the attached memo from Carolyn Fruchter, I am forwarding a travel request form for the recent ICCP meeting. I'm sorry that it reaches you after the fact but do not feel at fault. Your memo of January 13, 1975, titled "Revised Travel Policy" reached me too late for me to get the required form in prior to the January meeting of the ICCP Board. When I did send it in to ACM Headquarters with my expense statement, I asked for instructions on to whom it should be sent in the future. I received no reply other than a check. For the April meeting, I once again sent the approval form to Headquarters. This time, it was in advance of the meeting. Once again I asked for guidance (see upper left corner of the form) as to whether I should be sending it to someplace other than Headquarters. Enclosed is a copy of my expense report for the April meeting. The original (with receipts) had already been sent to Headquarters prior to my receipt of Carolyn Fruchter's memo. Also enclosed is a request form for the July meeting. I look forward to seeing you in Anaheim. Best regards, Paul Armer PA:mt

Association for Computing Machinery

1133 AVENUE OF THE AMERICAS NEW YORK, N. Y. 10036 (212) 265-6300



April 28, 1975

To:

Paul Armer

From:

Carolyn Fruchter

Subject:

Reimbursement for ICCP Board Meetings

Jean Sammet has asked me to advise you that all expenses must have approval before the event. In regard to ICCP, Jean herself authorizes them. In the future, the authorization form must have her approval before I can handle.

Please send the attached to her for her approving signature when you have completed the form with your expenses noted and she will in turn submit it to me.

Thank you.

clf

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Approval Table

Travel by Approved by					
1. Volunteer with no committee, board, etc. appointment President	President				
2. Committee member Board Chairman	Board Chairman				
3. Committee Chairman Board Chairman	Board Chairman				
4. Board Chairman Vice President	Vice President				
5. Council member President	President				
Name of Person Requesting Travel Support Paul ARMER					
Address 105 Hillside Aue, Meulo Park CA 94025 M Position ICCP DIRECTOR					
M Position ICCP DIRECTOR					
Purpose of Travel Attend ICCP BOARd MEETING					
IN Chicago					
Date(s) of Travel Apr. 24-26, 1975					
Amount of Support Authorized AirfARE, Lotel, MEALS & Expenses 407	,2				
Debit (Board, Committee, Council, etc.) ? ICCP?					
Approval by	-				
Date	-				
Forward to the Executive Director, ACM, 1133 Avenue of the Americas, New York, NY 10036					
For Headquarters Use Only					
(for Headquarters)					
2.0. number Cost Center 9.50 Account Number 15.5					

Authorization For ACM Volunteer Travel Support

Approval Table

	Approved by			
Travel by				
1. Volunteer with no committee,	President			
board, etc. appointment	Board Chairman			
2. Committee member	Board Chairman			
3. Committee Chairman	Vice President			
4. Board Chairman	President			
5. Council member	Flestdens			
	0 / 00.462			
Name of Person Requesting Travel Support PAUL ARMER Name of Person Requesting Travel Support PAUL PARK CA 94025				
Name of Person Requesting Travel Support				
LEC D D. D. C. TOR				
Purpose of Travel Attend ICCP BOARD MEETing				
Purpose of Travel Attend ICCF Donne				
IN Chicago				
Date(s) of Travel				
Date(s) of Travel				
Amount of Support Authorized Cost CENTER 950 - ACCOUNT NUMBER 133				
Amount of Support Authorized AIRTARE, NOTEI, MENIS & EXPENSED Debit (Board, Committee, Council, etc.) (ost (ENTER 950 - Account Number 155) [That's the way the last form was MARKED]				
	Approval by			
	Date			
	Ny 10036			
Forward to the Executive Director	ACM, 1133 Avenue of the Americas, New York, NY 10036			
For Headquarters Use Only				
Signed by (for Headquarters)				
	Cost Center Account Number			
O.o. number				
	lst Version issued 3/73 2nd Version issued 1/75			

202 Junipero Serra Blvd. • Stanford, California 94305 • (415) 321-2052

Surprise - I came back to the office and read the surlosed So din now returning it to you. Thank you. I have several comments:

and to you and to whomever had a hand on the fineward reports - they are fine to be shown that are great. However, they also lead me to went more -a synthetical shows this went more -a synthetical shows this south deliverthy so that do can see how much AF 175 Squade on different there;

ENTERTAIN MENT

Public Information 641

FYTY Budget

Dublic Information 641

International Relations—74

History of Computing—23

Was I. Info Cata—535

Board & Exec. Comm—535

Exhibits Operations—3057 (Travel & Entertant ARE

Exhibits operations—5794

Steeping Comm—2769

Steeping Communications—3788

Court. Communications—3788

(OVER)

Ecenthia Direction - 256
Ecenthia Direction - 658
Accounting & General - 201
Total 26,464

43 2 2

2) Re the charges to the Constitution of En aws, page 9 of the malina (a nellow sheet) has a reference to Sechon 7 of the Bylaws without citing an Article

3) I also have some strong frediges about the nomination process, about which all be writing to Jean - all send you a copy

Bal And

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

202 Junipero Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

30 April 1975

Dr. George E. Brosseau, Jr.
Office of Exploratory Research
and Problem Assessment
National Science Foundation
1800 G Street, N.W.
Washington, D.C. 20550

Dear George:

By this letter, I wish to request a no-cost extension of N.S.F. Grant #SSH71-01834-A01 from August 31, 1975 to August 31, 1976, with certain reallocations of funds among the various accounts as indicated in the attached table. Based upon our accounting records as of March 31, 1975, and our estimate for expenditures through August, we anticipate total expenditures for the period September 1, 1974 through August 31, 1975 to be \$427,000.

We should like to carry over into our next fiscal year all unexpended funds, which we estimate at \$240,000.

The reasons for the delay in expenditures are well known to you. Because of long lead times in bringing scholars to the Center, we were slow in getting up to the anticipated expenditure rate. Further, many of the scholars we had anticipated being charged to POSTS have arrived with either partial or full support.

As I told you in my letter of August 19, 1974, I will retire on August 31, 1975. My successor, Dr. Gardner Lindzey, will become the Principal Investigator for our POSTS grant beginning September 1, 1975.

Sincerely,

O. Meredith Wilson Principal Investigator

Alan Henderson Business Manager

	Category	Budget 9/1/75-8/31/76
A.	Salaries and Wages	
	1. Senior Personnel	
	a. 1 Principal Investigatorb. 2 Faculty Associates	\$ 38,000
	Sub-Total	\$ 38,000
	2. Other Personnel (Non-Faculty) a. 6 Research AssistantsPostdoctoral b. 1 Non-Faculty Professionals c. 0 Graduate Students d. 0 Pre-Baccalaureate Students e. 2 Secretarial-Clerical f. 0 Technical, Shop and Other	\$161,000 6,000 - 18,000
	Total Salaries and Wages	\$223,000
В.	Fringe Benefits When Charged as Direct Cost	5,500
c.	Total Salaries, Wages and Fringe Benefits	\$228,500
D.	Permanent Equipment	
E.	Expendable Equipment and Supplies	2,000
F.	Travel 1. Domestic 2. International	2,000
G.	Publication Costs	2,500
н.	Computer Costs	4,000
I.	Other Costs (Library Resources)	1,000
J.	Total Direct Costs	\$240,000
к.	Indirect Costs	
L.	Total Costs	\$240,000

(Center for Advanced Study in the Behavioral Sciences, Stanford, Ca. 94305)



April 29, 1975

Mr. Paul Armer CASBS 202 Junipero Serra Blvd. Stanford, California 94305

Dear Paul:

The grant that you saw in <u>Public Science</u> was independent of the proposals we have discussed earlier. As of this date there is no report but it is scheduled to wind up shortly and if there is a publication I'll try to make sure you receive it.

Bell had put in proposals to HEW and NIH that were not approved so it looks like no work will be done by Rand in the area. Perhaps next time you're here we can get together with Duran and talk about it.

How is the workshop coming along? What about Toronto as a location? Ted Willoughby tells me that Fred Harris is holding things up on the certification front (for political reasons). Ted is consistent, he never understands anything.

Hope all is well with all the Armers.

Best regards,

R. N. Reinstedt

Information Sciences Department

RNR: gb

23 April 1975 Dr. Dieter Kimbel Direction Des Affaires Scientifiques 2, Rue André-Pascal 75775 Paris Cedex 16 France Dear Dieter: I see that you are coming to the N.C.C. in Anaheim! I'll be there, staying at the Westward Ho Motel from May 18 through the 23rd. I hope we can get together. Any chance of your coming to the San Francisco area before or after the N.C.C.? If so, I hope you'll have time for a visit here. Can I help with appointments at Stanford or elsewhere? If you're still in the Los Angeles-Anaheim area on the evening of May 23 and would be interested in a social meeting of the Digital Computer Association, please let me know as reservations are necessary. The idea is to poke fun at the computer industry -- awards are given for the worst performance of the year, etc., etc. I look forward to seeing you. Paul Armer PA:mt



GENERAL MILLS, INC. · DIRECT MARKETING GROUP · 9200 Wayzata Boulevard · Minneapolis, Minnesota

April 18, 1975

Director
Business Development
& Market Planning

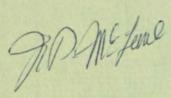
Mr. Paul Armer Center for Advanced Study in the Behavioral Sciences Stanford, California

Dear Mr. Armer:

I read with a great deal of interest the article in the March, 1975 PRIVACY JOURNAL entitled KEEPING YOUR BILLS SECRET IN AN ELECTRONIC AGE. The article was adapted from your remarks at the last national conference of the Association for Computing Machinery, and if possible, I would very much appreciate receiving a copy of the complete address.

Thank you for your help.

Sincerely,



18 April 1975 Professor Michel Crozier Center de Sociologie des Organisations 20 Rue Geoffroy Saint Hilaire Paris -- 75005 -- France Dear Michel: Thank you for responding so quickly to my recent letter. I have a futher request. Would you send me reprints of the publications you listed which have already been published? And, as those still in the publication process see the light of day, we'd very much like to have copies of them. Thanks for your help. Best regards, Paul Armer PA:mt

Mr. Paul Nitze 1500 Wilson Boulevard, Suite 1500 Arlington, Virginia 22209

Dear Paul:

George Quester and I have discussed your schedule of activities for your visit here on May 8 and 9. What we would like to suggest is the following:

Thursday, May 8

- 12:00-1:00 p.m. Informal lunch at the Faculty Club with several faculty members
- 1:15-2:05 p.m. Lecture to our second quarter arms control and disarmament class (about 20 undergraduate students who have already taken our introductory course). The course outline is attached. Your suggested topic: "The national strategic debate What it is and who decides." Chaired by John Lewis.
- 3:00-5:00 p.m. Discussion at the Center for Advanced Study in the Behavioral Sciences on (we suggest) "Issues in the national strategic debate." (This discussion could set the framework for the Faculty Seminar and the Center meeting on May 9.) Chaired by George Quester.
- 7:30 p.m. Informal dinner, hosted by John Lewis.

Friday, May 9

- 12:00-1:30 p.m. Arms Control and Disarmament Faculty Seminar on the Stanford campus. The (suggested) topic could be "SALT and the American defense posture." Your Los Alemos paper might serve as background reading here. Chaired by John Lewis.
- 2:00-4:00 p.m. Discussion at the Center for Advanced Study on "Requirements in U.S. foreign policy." You will probably wish to define your topic more sharply to round out the series of three seminar presentations. Chaired by George Quester.

As I mentioned earlier, we will plan to reimburse you for your round-trip economy class airfare and your local expenses. In addition we plan to pay you a modest honorarium of \$300. We have booked a room for you at the Holiday Inn near the Stanford campus for the nights of May 7, 8 and 9. Please let me know your travel plans so we can arrange transportation from the airport to the Stanford campus if it is required.

Let me say again, Paul, how delighted we are that you will be coming. If we can do anything to help arrange other aspects of your visit here that might appeal to you please let me know. I will be gone for a week to Japan starting tomorrow but will be back in the office on April 28 should you wish to call me to discuse any of these plans.

With best regards.

Sincerely,

John Wilson Lewis

JWL:gb

Enc.

cc: George Quester

bcc: Paul Armer

HARRAN April 17, 1975 Professor Thomas C. Schelling Department of Economics Littauer Center Harvard University Cambridge, Massachusetts 02138 Dear Tom: George Quester has been in touch with you about your upcoming visit to Stanford on May 1. George is presently out of the country, and I am about to leave for a week in Japan. But before leaving I just wanted to finalize our arrangements. As George mentioned in his letter to you of March 12, we would like you to give a lecture to our second quarter arms control course which takes place from 1:15 to 2:05 p.m. on Thursday, May 1. There are some 20 undergraduates in this course. I am enclosing a copy of the course outline, and as you will see we are suggesting that you speak on the topic "How does deterrence theory affect decision-making." Later in the afternoon (3-5 p.m.) George Quester would like you to spend some time at the Center for Advanced Study to meet with the group there. A number of our erms control faculty will attend that meeting as well. I understand you will be focusing your discussion on improving American foreign policy-making procedures. George is also planning to arrange a dinner for you that evening if you are free. We've booked a room for you at the Stanford Faculty Club for the night of May 1. Would you paeass let my secretary (Gerry Bowman, area code 415, 497-4353) know when you will be arriving, and if you will need a room for the night before (April 30) as well? If you need transport from the San Francisco Airport, let her know and she can arrange to have the Airport Limousine Service bring you to Stanford. It would also be helpful if you could give Ms. Bouman your Social Security number and home address so we can arrange to have your honorarium ready for you when you errive. Depending on your arrival time on May 1, I'd like very much to have lunch with you. In any case, see you then. Sincerely, John Wilson Lawis JWL:gb cc: George Quester Paul Armer

JEAN E. SAMMET

Association for Computing Machinery

(212) 265-6300

President

Reply to: IBM Corporation 545 Technology Square

NEW YORK, NY 10036

1133 AVENUE OF THE AMERICAS

Cambridge, MA 02139

April 17, 1975

TO: ACM Council

SUBJECT: Election of Directors for AFIPS and ICCP

1. ICCP

The term of Fred Harris as the Senior ACM Director to ICCP terminates in May 1975. The Executive Committee recommends to Council that Fred be reelected as the Senior Director, with the proviso similar to the one passed in November 1974 relative to a possible change of the designation of "Senior Director". The reason is that ICCP might establish a rule that officers of ICCP cannot be the senior director of the associa-

Although in general I prefer to have two candidates to recommend to the Council, in this case it seems appropriate to recommend only Fred. ICCP is still in its infancy and Fred's experience seems badly needed. Furthermore, he is currently the ICCP Vice-President and there is a reasonable chance that he will become the next President. Unlike AFIPS, the ICCP officers must be representatives of the member societies.

Possible Motion - to be discussed and voted on in an Executive Session

Fred Harris is reelected as the Senior ACM Director to ICCP for a term which ends June 30, 1977. The Executive Committee is delegated the authority to change the designation of Senior Director to Paul Armer if it becomes appropriate for more effective working of ICCP and is commensurate with ACM

2. AFIPS Director

The current ACM Directors on the AFIPS Board are Jean Sammet (ex officio), Bill Holden (elected in November 1974), and Dick Blue. (Dick is our current representative on the AFIPS Executive Committee.) His term expires in May 1975.

In this case, the Executive Committee feels that we should present two well qualified candidates and let the Council choose from between them. The Executive Committee therefore recommends Dick Blue or Stuart Lynn. Both have indicated a willingness to serve as an ACM Director and both have qualities which make them suitable ACM

This election will be conducted by written ballot in an Executive Session.

cc: Paul Armer Dick Blue

Jean E. Sammet

SUBJECT I NTER NATIONAL CONFERENCES

MESSAGE

There a comple of comments. These policies work both ways and it sometimes twoms out that the USA isn't always on the side of the good guys. For example, suppose Some Cubans wish to attend an NCC. Will the state Dept (ours) grant them visas? If not, will this policy require that ACM withdraw from NCC sponsorship? The Same thing applies to ACM's own meetings. In all for the policy but we should have the above problem in front of us when we fare the issue. What about North Vietnamese as well? Whom will the USA be mad at next year? the USA be mad at next year? 2) How wide spread are the ICSIA principles? If they are not, then the last sentence of the resolution could be troublesome. The trouble could be fixed by wording which points the ACM Council of the Committee to approve ACM sponsorship of meetings for which the ICSU principles are implicit. P.S. The possible implementing procedures would seem to answer my Second comment. If they do, then I'd argue that the procedures do not match the Strong language of the real to Strong language of the resolution which says no "Explicit poling, no sponsorship". This could be fixed by deleting explicit but I perfet the strong policy of procedures to match.



8 April 1975

Mr. Paul Armer CASBS 202 Junipero Serra Boulevard Stanford CA 94305

Dear Paul:

Sorry we missed getting together when you were in the neighborhood. Perhaps if there is a workshop in May we can have dinner.

The SCDP article is enclosed. I still can't understand how people can take it upon themselves to do something like that. Kenneth Lord must take his name seriously.

I checked, and the proposal we discussed did not receive approval; too bad, it seemed like a worthwhile effort to me.

Best regards,

R. N. Reinstedt

B06

Information Sciences

Department

RNR:sj

Enclosure as noted.

8 April 1975 Drs. Berger Psychometrics 10889 Wilshire Boulevard Suite 909 Los Angeles, California 90024 Dear Ray and Frances: First of all, I want to thank you for the long hours you spent with me on March 28. I feel guilty that my agenda pushed aside the one you had previously arranged with Gus Willmorth. I'm still mulling over our conversations and will keep you up to date on transpirations on the various fronts. Enclosed are copies of material I've received on self-assessment testing from the surgeons and the dentists. Best regards, Paul Armer PA:mt

MILTON R WESSEL
ATTORNEY AT LAW

SUITE 3720 · 45 ROCKEFELLER PLAZA · NEW YORK 10020
TELEPHONE 212 · 582 · 2560

April 3, 1975

Mr. Paul Armer
Center for Advanced Study in the
Behavioral Sciences, Inc.

Dear Paul:

202 Junipero Serra

Stanford, California 94305

Delighted to learn of the possibility that you'll be on the EFTS Commission. Were that to happen, my admiration for the political impartiality of our administration would grow by leaps and bounds!

You might be interested in the enclosed summary of the work two of my students have been doing in purusing the EFTS developments. They're in the middle of their oral report to the class and should have a written seminar paper completed in a month or so. It makes a fascinating story.

With warm regards -- and hopes,

Sincerely,

MRW:ck Enclosure

March 27, 1975

Professor Lawrence R. Harvill Chairman, Department of Engineering University of Redlands Engineering & Computer Science Department Redlands, California 92373

Dear Professor Harvill:

I was delighted to learn from Norman Stanton that you expect to teach a computers and society course at the University of Redlands next year, and certainly will do everything I can to help.

By copy of this letter, I'm asking Ms. Virginia Woods, Faculty Secretary at the Columbia Law School, to send you a copy of the six-volume set of duplicated materials I have prepared for my seminar at Columbia Law School this year. The subject matter is so fast moving that it's already been supplemented by at least 50% as much additional material given out to the students each week (on subjects such as electronic funds transfer and the like). I've used the latter, plus Freedom's Edge (and an earlier book I did with Dr. Bruce Gilchrist, now director of computing activities at Columbia, largely for reprints and source materials) as the text.

I do get out your way from time to time, and would be glad to meet and talk with you if it's convenient. I'm presently scheduled to be in Anaheim at the National Computer Conference (which you might be attending) May 21-24 (staying at the Royal Inn), and again in San Diego October 23-24, following which I will probably be at Palo Alto over the weekend (I have a son at Stanford). Perhaps more usefully, however, the source of a major part of my learning is Paul Armer, at the Center for Advanced Study in the Behavioral Sciences in Palo Alto (telephone: 415-321-2052). Paul is a distinguished computer scientist and leader in the whole field of computers and society, has participated in my course and helped me develop it, and I'm confident would be glad to give you the benefit of his experience.

Paul for werd.

Professor Lawrence R. Harvill March 27, 1975 - Page Two -

Please let me know if there's anything else I can do to be of assistance.

Sincerely,

- Mallorace le

MRW:ck

cc: Mr. Norman A. Stanton

Dr. Paul Armer
Center for Advanced Study in the
Behavioral Sciences, Inc.
202 Junipero Serra
Stanford, California 94305

Ms. Virginia Woods Faculty Secretary Columbia University School of Law

25 March 1975 Ms Judith Tendler 3062 Buena Vista Way Berkeley, California 94708 Dear Jadith: Thank you for your note. We are trying to get last year's annual report for POSTS put to bed by the next meeting of the Center's Board of Trustees. To do so we must have your response to point #1 of Met Wilson's memo of June 1974 in hand no later than April 8. Best regards, Paul Armer PA:mt Encl: OMW Memo

25 March 1975 Professor Michel Crozier Centre de Sociologie de Organizations 20, Rue Geoffrey-St. Hilaire 75 Dear Michel: We are trying to get last year's annual report for POSTS put to bed by the next meeting of the Center's Board of Trustees. To do so we must have your response to point #1 of Met Wilson's memo of June 1974 in hand no later than Aparl 15. Letters to you from Steve Weiner and myself have not been answered nor has my recent cablegram elicited any response. Are you okay? Please let us hear from you. Best regards, Paul Armer PA:mt

PAUL N. McCLOSKEY, JR.
12th DISTRICT, CALIFORNIA

COMMITTEE ON
GOVERNMENT OPERATIONS
AND
COMMITTEE ON
MERCHANT MARINE
AND FISHERIES

Congress of the United States House of Representatives Washington, D.C. 20515

205 CANNON BUILDING WASHINGTON, D.C. 20515 (202) 225-5411

DISTRICT OFFICE; 305 GRANT AVENUE PALO ALTO, CALIFORNIA 94306 (415) 326-7383

March 24, 1975

Dear Friend:

This is the first of what I hope will be a productive series of letters between us. I am sending this letter to a group of people in the 12th congressional district who have either indicated a willingness to serve on a permanent advisory committee, or on whom I have relied in the past for advice on particular subjects. It has been a long-standing desire on my part to build up an advisory group of thoughtful people back home who would be willing to keep me informed on their views and attitudes on matters of which Congress should be aware, as well as comment on specific issues pending before Congress.

The perspective from the peninsula is much different, and sometimes much wiser, than the perspective from the House floor.

In the past, to learn this perspective, I have held an average of 100 "Constituent Day" meetings each year, usually using at least 18 three-day weekends for this purpose. While I will continue to come home at least once a month, I hope to cut down the time involved and to put more emphasis on small gatherings with people such as yourself who have indicated an interest and willingness to maintain a continuing and thoughtful communication.

Would you be interested in this kind of activity? If so, I would particularly value your review of the enclosed report I sent to the President following my trip to Vietnam. It raises some troublesome questions which will be debated in the Congress in the very near future. I have enclosed a few of these questions, and would welcome any comments you feel pertinent at the earliest opportunity.

Thanks for your willingness to help.

Sincerely,

Paul N. McCloskey, Jr

PNMcC:jj Enclosure

FOREIGN POLICY QUESTIONS

1. If North Vietnam continues to get \$400 million per year in military assistance from China and Russia, would you favor giving South Vietnam an equal amount of military assistance?

Yes___No_X

I thiNK the situation in South VietNAM is hopeless. More AMMUNITION Might postpone things VERY briefly but would mean just that many More CASUALTIES ON both sides

2. If North Vietnam continues to get \$1.29 billion per year in economic assistance from China and Russia, would you favor giving South Vietnam an equal amount of such assistance?

Yes X No

Comment: I AM IN FAVOR OF SOME | EVE | of humanitarian ASSISTANCE to the victims of the WAR IN both the North and the South. I don't know what the Appropriate AMOUNT IS.

3. Should we withdraw from the Asian continent generally? (i.e., 5,000 men and 4 air bases in Thailand, 40,000 troops in Korea)

Comment: However, WE should not stay & if Misadventures like Vietnam are the result of our presence

Name PAUL ARMER Address 105 Hillside Ave MENTO PARK, CA 94025

Home Phone 415-854-3063 Business Phone 415-321-205-2

Party Affiliation DEMOCRATIC

I will be pleased to be A MEMBER of YOUR Advisory group. I AM A computer scientist with interests in the Social implications of computer technology such as the impact ON PRIVACY, EMPloyMENT ETC. I AM PRESENTly SWEATING OUT AN Appointment to the Commission on Electronic Funds Transfer Systems as one of its five public members. To de

21 March 1975 Dr. Harold A. Zintel Assistant Director American College of Surgeons 55 East Erie Street Chicago, Illinois 60611 Dear Dr. Zintel: Thank you for your letter of March 10 and its enclosures. In your letter you inquired about the source of my fellowship. The Center grants about fifty fellowships each year, drawing upon its own funds and on grants from various institutions. I am enclosing a brochure which describes the Center. Thank you again, Paul Armer PA:mt Encl:

21 March 1975 Mr. William Weber Subcommittee on Financial Institutions New Senate Office Building Room 5300 U.S. Senate Washington, D.C. 20510 Dear Bill: Enclosed is a copy of "EFTS, Banking and Regulation J" from the Bank Administration Institute, which I promised to send to you. I have a favor to ask of you. I have been trying to obtain a copy of "Protecting Individual Privacy in Federal Gathering, Use and Disclosure of Information -- Report of the Committee on Government Operations to Accompany S 3418--U.S. Senate, September 26, 1974" from Senator Cranston's office without any success. Do you have a way of sending me a copy? How did last Friday's Hearings go? Sincerely yours, Paul Armer Fellow PA:mt

20 March 1975 Dr. Mary I. Bunting Princeton University Princeton, New Jersey 08540 Dear Dr. Bunting: I have read William McCleery's interview with you in University with considerable interest. My own concerns with continuing education are expressed in the enclosed reprint. I have two favors to ask. Would you send me a copy of the brochure describing Princeton's continuing education program? And would you give me references for the output of the Commission on Nontraditional Study? Sincerely yours, Paul Armer PA:mt

14 March 1975

Professor Gardner Lindzey
Vice President and Dean of Graduate
Studies
University of Texas
Austin, Texas 78712

Dear Gardner:

Met tells me that you will be here on April 4. Will you be able to set aside some time for discussions with us on POSTS and the future of the POSTS Advisory Council?

Sincerely yours,

Paul Armer

PA:mt

cc: O. M. Wilson

NATIONAL SCIENCE FOUNDATION

WASHINGTON, D.C. 20550

March 14, 1975

327-1184
Has Margaret Williamson
Reterson
After 4/19

Mr. Paul Armer Center for Advanced Study in the Behavioral Sciences 202 Junipero Serra Boulevard Stanford, California 94305

Dear Mr. Armer:

Enclosed is the draft final report of a technology assessment of Movement Towards Less Cash/Less Check Society that you have agreed to review.

In your review, I would ask that you consider the merit of the report in terms of its technical content as well as its policy implications. We would appreciate your comments as to any particular strengths or weaknesses of the report. In addition, your advice regarding distribution of the report will be very valuable.

We are hoping to receive all review comments not later than April 14. We shall be most grateful for your help.

Sincerely yours,

for G. Patrick Johnson

Program Many Many Program Manager

Office of Exploratory Research and Problem Assessment Research Applications

Enclosures

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

202 Junipero Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

14 March 1975

TO: Members of the POSTS Advisory Council

SUBJECT: Future Meetings of the Council

FROM: Paul Armer

In my memo to you of 6 January 1975, I told you of a planned meeting between Gardner Lindzey, Met Wilson and myself at which we would plan future activities of the Council. Due to a battle with the flu bug, Gardner's planned trip to California was cancelled. We now hope to get together again on April 4. I'll be in touch after that meeting.

Cablegram Night letter voto

Michel CROZIER

URGENTly NEED INFORMATION requested
in my letter of 22 farmary. Will you help?

PA

pent 75

14 March 1975 Dr. Alan M. Thorndike Brookhaven National Laboratory Department of Physics Upton, New York 11973 Dear Dr. Thorndike: Here's another name to add to your list of people interested in EFTS who live in your neck of the woods. It is Professor James B. Rule of the Department of Sociology at SUNY-Stony Brook. He has written a book entitled "Private Lives and Public Surveillance." I just received my copy and haven't read it as yet, so I can't comment on its quality. I hear that Rule may do a brief study for the Office of Telecommunications Policy attempting to lay out a plan for the investigation by the EFTS Commission of the impact on privacy of EFTS. Sincerely yours, Paul Armer PA:mt

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

202 Junipero Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

11 March 1975

TO: Members of the Strategic Policy Group

FROM: Paul Armer

SUBJECT: Lost Paper

Do any of you know the whereabouts (or have your own copy I might borrow?) of the following paper by Graham Allison?

Questions About the Arms Race: Who's Racing Whom?

A Bureaucratic Perspective.

It was published in "Contrasting Approaches to Strategic Arms Control," Robert L. Pflatzgraff, Jr., Ed.

Lewis M. Branscomb

Old Orchard Road, Armonk, New York 10504

Dr. Paul Armer
Program on Science and Technology
Center for Advanced Study in the
Behavioral Sciences
202 Junipero Serra Boulevard
Stanford, California 94305

Dear Paul,

I believe I notified the Center on an earlier occasion of my change of address from

245 Milton Road, Rye, N.Y.

to

5 Hidden Oak Lane Armonk, New York 10504.

The honorarium is still arriving forwarded from the old address.

I wonder if there is anymore news of the followon plans for the POSTS activity. I think it would not be unreasonable for the seperately identified and guided program to come to an end, if the successful and useful experiences can be integrated into the mainstream of the Center activity. I wonder, though, whether there has been enough time for this innoculation to "take".

Best wishes,

March 3 1975

Lewis

REACTIONS to JEANS QEA

Reston #

1. You didn't explicitly respond to why not more than

two V. P. S. ...

When you say ... the matter of heir apparent is

completely eliminated , I choke on such

Strong words as "completely."

3. Does ACM use chairperson rather then chairman????
This occurs thru out the document.

4. I don't like the word responsible in the third line . Suggest . . presdut would have to interface with 6 Board Chairpress . . . "

Jost prograph assumes that all Board Chairpersons would be on the executive committee if they were also V. P. 5. Doesn't have to be that way, does it?

-JERN, I think you did an outstanding

Fal And 3-3-75

28 February 1975 Dr. Montgomery Phister, Jr. 15 Rue Pretres St. Germain 1'Auxerrois Paris, le, France Dear Monty, This is in response to your letter of January 29. First of all, I agree with points a, b, and c in your letter. My only quarrel with "Economics of Technology" is that it has no discussion of the reward system of the academic world. It's pertinent because the reward system ignores (or even punishes) inter- or multi-disciplinary efforts and therefore they die out in the academic community. And what you propose is multi-disciplinary. I believe in the importance of the activity you describe in your paper but am very pessimistic about the probability of any university ever picking it up and doing it. I hope Spectrum publishes it. I hope you enjoy yours if "down under." Please give my regards to John Bennett. And I'd like to hear sometime about your impressions of Harvard. Best regards, Paul Armer PA:mt

28 February 1975 Professor William T. Martin, Director Division for Study and Research in Education Room 20C-125 Massachusetts Institute of Technology Cambridge, Massachusetts 02139 Dear Professor Martin: Thank you for the material you sent to me at the request of Donald L. Thomsen, Jr. I am particularly interested in the topic of "learner as model-builder" and the psychology of learning in the older student. These concerns are part of a larger interest in the problem of obsolescence of knowledge. Should you want to take the time to read it, I'm enclosing a reprint of mine. If DSRE has produced any papers on either of the above topics, I would greatly appreciate receiving them. Reading lists would also be most welcome. Although it doesn't make sense for me to receive seminar and colloquia notices in view of my distance from Cambridge, I would appreciate being placed on your mailing list for other information on DSRE. Sincerely yours, Paul Armer Fellow PA:mt

DIVISION FOR STUDY AND MASSACHUSETTS INSTITUTE OF TECHNOLOGY RESEARCH IN EDUCATION CAMBRIDGE, MASSACHUSETTS 02139 Room 20C-125 February 20, 1975 Mr. Paul Armer Institute of Behavioral Sciences Stanford University Palo Alto, California 94305 Dear Mr. Armer: Dr. Donald L. Thomsen, Jr. has written that you are interested in having information about our Education Division. I am, accordingly, enclosing copies of two brochures describing our work. Sincerely yours, w. Martin W. T. Martin WTM:ktr Enclosures xc Dr. Donald L. Thomsen, Jr.

Columbia University in the City of New York | New York, N.Y. 10025 612 West 115th Street DIRECTOR OF COMPUTING ACTIVITIES February 24, 1975 Mr. Paul Armer Center for Advanced Study in The Behavioral Sciences 202 Junipero Serra Blvd. Stanford, California 94305 Dear Paul: Very many thanks for the copy of your letter to Ernst. Did you ever get a reply? I remember your talk at ACM'74 and would encourage you to add the "additional polishing" and submit it for publication. I liked it because it includes some important facts and figures which ought to be better known by computer people (and others). With best regards, Sincerely, Bruce Gilchrist BG:j

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

202 Junipero Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

February 20, 1975

Barbara A. Mutz Office of Exploratory Research Problem Assessment (RANN) National Science Foundation 1800 G Street, N.W. Washington, D.C. 20550

Dear Mrs. Mutz:

Enclosed please find copies of NTIS Form #35 on seven articles resulting from Grant #SSH71-01834-A01. Fifty copies of each article are being shipped separately, in accordance with Dr. George E. Brosseau's recent request for additional manuscripts. Will you please pass his copies on to him?

Sincerely,

Paul Armer

POSTS Program Coordinator

Enclosures: NTIS Form #35 for: FUCH-V-02

JONE-C-11

JONE-C-12

JONE-C-13

THAC-A-02

THAC-A-10

ZUCK-H-03

cc: Dr. G.E. Brosseau, Jr.

PA/pkg

19 February 1975 Dr. Harold A. Zintel 55 East Erie Street Chicago, Illinois 60611 Dear Dr. Zintel: In the July-August 1970 issue of the Bulletin of the American College of Surgeons, there is a reference to a "surgical self-assessment program." Can you tell me more about it. I am interested in the topic of self-assessment testing as a means of avoiding obsolescence. I would be particularly interested in knowing whether the College felt that the program had been successful, what percentage of your members took it, whether or not you developed group norms and similar information. I would also appreciate receiving copies of brochures announcing the program and instructions sent to the testers. Any references to papers on the program would be welcome. I am hoping to write a book on the problem of obsolescence and would like to include therein what each of the professions is doing about it. I enclose a short-reprint which expresses some of my concerns. Sincerely yours, Paul Armer Fellow. PA:mt

February 18, 1975

Mr. Paul Armer Center for the Advanced Study of the Behavioral Sciences 210 Junipero Serra Palo Alto, California 94305

Dear Paul:

I just want to thank you again - in writing - for your outstanding lecture Monday, as well as for the thorough and detailed preparations which preceded.

As I thought about the session on the plane to Midland, one additional item of evidence of student enthusiasm came to mind. Lilly Yarrow the Masters' candidate sitting to my right, had asked for permission to leave early because the trains to her home in New were running on holiday schedule. If she stayed after 5:30 she wouldn't get home until very late.

She did not leave early!

forgere the types - no roque secretary out here!

Joan has searched for - and I think found - the wine, for which we are also both most grateful. You're fantastic!

With very very deep appreciation and best regards, thank you all.

Sincerely,

Milton R. Wessel



SIAM INSTITUTE for MATHEMATICS AND SOCIETY

97 Parish Road South, New Canaan, Connecticut 06840 (203) 966-1008

DATE: February 17, 1975

TO: Mr. Paul Armer

Paul:

I have not been able to find Ted Martin's materials that I promised to send you last summer. I hope that as a result of the attached letter he will send them to you directly.

Victor came through with a formal write-up of his presentation, and that will appear in this month's <u>SIAM News</u>. I will send you a copy when it is received.

Best regards,

Jon

DLTJr:tb Encl.

February 17, 1975 Professor W. T. Partin Massachusetts Institute of Technology Room 200-125 Cambridge, MA 02139 Dear Ted: Last summer at the IFIF Congress in Stockholm I promised to send to Mr. Faul Armer (Institute of Behavioral Sciences, Stanford University, Palo Alto, California 94305) some of the material you had forwarded to me on the Division for Study and Research in Education. I thought I had some of the early announcements in my files but am not able to locate them. I would appreciate it very much if you could send ir. Armer any appropriate materials directly. Mr. Armer is a fellow at IBS and has been interested in educational problems for some time, those having to do with computers and, more recently, problems in adult education. Best regards. Sincerely, D. L. Thomsen, Jr. President and Executive Director DLTJr:tb bcc: Mr. Paul Armer Boul - to less

MESSAGE SOME PLACE IN the tow of MATERIAL

HAT TONY RAISTON SENT ME RE ICCP, I SAW

A REFERENCE to the fact that you had received

SOME MATERIAL RE TESTING IN the BRITISH COMPUTER

SOCIETY. Is there anything therein which might be

USEFUL to US IN PREPARING FOR the WORKSHOP? BOD

AShenhurst DUCE had A TASCONDONY FOR THE COMPUTER FIELD

FOR ME TOO!

YOUR LETTER OF FEB 4 ARRIVED TO AND MAKE A COPY

FOR ME TOO!

YOUR LETTER OF FEB 4 ARRIVED TO AND MAKE A COPY

GETS WORSE BY THE DAY. I'll do MY best to MEET YOUR 225

GEADLINE BUT I'M NOT OPTIMISTIC. I lost A COUPLE, of WEEKS WITH

A NEW MEDICAL PROBLEM WHICH PUT HE INTO THE HOSPITAL FOR A DAY TO

REMOVE A CYST. BUT THAT'S DEHIND ME NOW. BUT NEXT WEEK IN

WASHINGTON IS AHEAD OF ME!

SIGNED

REDIFIED

DATE //

REDIFIED

BELL PROBLEM INTO SEND PARTS I AND 3 WITH CARDON INTACT - PART 3 WILL BE RETURNED WITH REPLY

DATE //

REDIFIED

DATE //

REDIFIED

DATE //

DETACH AND FILE FOR FOLLOW-UP

SUBJECT DAGE 7 of the CIIP paper attached DATE 2/13/75

MESSAGE mentions job profiles prepared for the

GOVERNMENT OF THE PROVINCE OF QUEBEC. They

Might be helpful -do you have acantact who

Might get them for US? GRANT Boyd?

SIGNED

_

SIGNED

DATE

Rediforme 45 471

SEND PARTS 1 AND 3 WITH CARBON INTACT - PART 3 WILL BE RETURNED WITH REPLY

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

202 Junipero Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

12 February 1975

TO: Members of the ACM Self-Assessment Testing Committee

SUBJECT: Testing and Licensing

FROM: Paul Armer

Enclosed are copies of some correspondence related to licensing, which is somewhat related to our committee's interests. I believe that the papers by Rogers, McClelland, and the unknown Canadian author are particularly pertinent to our effort, since they discuss the difficulties of developing meaningful tests.

Fortunately for us, the tests we'll be trying to develop do not have to meet the requirements set forth by Rogers and McClelland. As Eric keeps reminding us, if one of our questions teaches the reader directly or causes him to read something and thus learn-the question is a success.

Also enclosed is a copy of "Some Elements in the Test Development Process," which I promised Terry I'd send to each of you.

THE RESIDENCE OF THE PARTY OF T	FROM	PA
· RNR	and the state of t	
	THE PARTY OF THE P	
	Name and Address of the Owner, where the Owner, which is the Owner, which is the Owner, where the Owner, which is the Owner,	DATE 2/11/75
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you once Sent me	the attached. I'd likes	1 1 7
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had me out of the pool	for 3 weeks and they estudy. Joan got of the legitiment of the strong of	I April So she's on doud
Detated Swimming	A Stegstoned Francis	I are some recent
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REPLY Correspond	dence for 10	1 Saul
		11
	SIGNED	DATE / /
	SIGNED S 1 AND 3 WITH CARBON INTACT - PART 3 WILL I	SE DETURNED WITH REPLY



BROOKHAVEN NATIONAL LABORATORY

ASSOCIATED UNIVERSITIES, INC., UPTON, L.I., N.Y. 11973

DEPARTMENT OF PHYSICS

TELEPHONE: (516) 345-3729

February 10, 1975

Dr. Paul Armer Center for Advanced Study in the Behavioral Sciences 202 Junipero Serra Boulevard Stanford, California 94305

Dear Dr. Armer:

Thank you very much for your letter of January 20th with suggestions on information about EFTS. I have Joe Coates' copy of the A. D. Little report which OTA sent me to read. I hope to talk with him about it when I go to Washington later this week. At that time I will check whether the OTA library has the other reports that you mention and suggest that they get them if they do not. Craig Decker, incidentally, has left OTA to go to graduate school at MIT.

I found your April 1968 paper interesting to read through. The idea has been around for quite a while, but it is an enormous job to make systems automatic that are used by a great many people, even when it is generally considered to be advantageous. Feelings about EFTS tend to be mixed, I guess.

Being an experimentalist, I am trying to use my Master Charge card when opportunities permit. It is convenient, and so far it has led to no obvious disasters. Whether it is generating some vast file in the CIA headquarters I couldn't tell.

Olan Houdike

Alan M. Thorndike

AMT/jns

10 February 1975

President's Commission on Personnel Interchange Suite 1316 1900 E Street, N.W. Washington, D.C. 20415

Gentlepeople:

Will you please send me information on the Personnel Interchange Program?

Sincerely yours,

Paul Armer Fellow

PA:mt

10 February 1975 Ms Jamie Fox ICCP P.O. Box 1442 Chicago, Illinois 60690 Dear Jamie, Tony Ralston sent the ICCP related material he had collected during his tenure as an ICCP Director to me. In going over it, I find a reference to the minutes of the meeting held April 19-20, 1974, to Exhibit 2 on page 3. The exhibit is the report of the CDP Review Panel chaired by John MacLean. It is not in the material I received from Professor Ralston. Can I impose upon you to send me a copy of the report. Best regards, Paul Armer PA:mt

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES Telephone (415) 321-2052 202 Junipero Serra Boulevard • Stanford, California 94305 10 February 1975

My Colleagues of ICCP TO:

Paul Armer FROM:

Because I was an outspoken critic of the formation of ICCP, I thought it might be a good idea to say a few words about my attitudes at the present and why, in view of my original criticism, I accepted the appointment of the ACM Council as one of their representatives to ICCP.

As I carefully stated in my public statements about the formation of the Computer Foundation, I was (and still am) "in complete sympathy with the stated goals of the Foundation." It was some of the strategic and tactical aspects of striving towards those goals to which I objected. But I lost that battle and it's water over the dam. I'm now anxious to do what I can to further those goals. But I do still believe that we have taken on a very difficult task. And I'd like to share with you some material which leads me to that belief.

Enclosed is an extract from an invited address by Carl R. Rogers to the American Psychological Association, September 2, 1972. In it he proposes to the APA the "sweeping away our procedures for professionalization." The psychologists are the experts in testing and here is an ex-President of the APA saying that the certification task is so difficult that the certification program of the APA has failed. I'm not saying that ICCP shouldn't try, but we should recognize the enormity of the problem facing us.

Also enclosed is a paper by David C. McClelland from the American Psychologist of January 1973. He too is concerned with the difficulties of developing reasonable tests. And the Reinstedt-Berger paper from Datamation of November 1973 is enclosed. Another enclosure is a paper by an unknown author (Grant Boyd knows who it is) given at the November 20, 1974 meeting of the Canadian Institute of Information Processors.

Among my reasons for joining the ICCP Board was that it presented the opportunity to push self-assessment testing and other responses to the problem of obsolescence. Along these lines, you will find enclosed a paper of mine entitled "Obsolescence & Self-Assessment," which appears in the Proceedings of the Conference of ACM's Special Interest Group on Computer Personnel Research, June 15-16, 1972.

Lastly, enclosed is a memo I've sent to some of the ACM people concerned about the SCDP proposal which indicates to me that we (the ICCP) might have included in our resolution something to the effect that we believe in prequalification testing in licensing in the data processing field, if and when licensing is persued.

I apologize for putting more paper on your desk but I believe it is important to all of us.

CENTER FOR ADVANCED STUDY IN THE BEHAVIORAL SCIENCES

202 Junipero Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

7 February 1975

TO:

Oliver R. Smoot Jean E. Sammet

FROM:

Paul Armer

SUBJECT: Licensing Legislation

This is in response to Jean's memo of December 11 concerning SCDP's proposed legislation on licensing. As the drafter of the resolution recently adopted unanimously by the ICCP Board of Directors, I obviously agree with the position it takes.

However, since the meeting I have discussed the resolution with Donn Parker who pointed out that it has an implicit assumption in it; namely that the licensing process will involve testing. I was aware of that assumption and assumed it to be true. However, Donn tells me that in some states they sometimes will license for some positions anyone who asks to be licensed. The license will be lifted if a number of people complain about the individual. So the only real meaning of such a license is that a large number of complaints have not been made about the individual.

I guess I believe licensing should involve prequalification of some sort and preferably include a test or tests. I haven't seen the legislation proposed by SCDP so I don't know whether it assumes testing or not.

I'd recommend that ACM endorse the ICCP resolution or adopt a similar one which might contain a statement saying that we believe that licensing, if it does become socially desirable, should be based on prequalification including testing.

I'm sending a copy of this to Donn Parker so that he can correct or expand on what I've said about his comments if he desires. I'm also enclosing a memo I'm sending to my cohorts on the ICCP Board and the enclosures to that memo. Dan Am

cc: Donn Parker Fred H. Harris John K. Swearingen

P.S. Also enclosed is a copy of an article from the Wall Street Journal of January 8, 1975 which indicates that some state legislators may have become somewhat disenchanted with licensing and with licensing boards.

7 February 1975

Mr. Robert V. Head 9102 Live Oak Lane Upper Marlboro, Maryland 20870

Dear Bob:

Your letter of January 31 reached my desk doday after being forwarded from Los Angeles.

With respect to your request that I support your candidacy for the position of Executive Director of the EFTS Commission's Staff, I don't see how I can take such a stand when I don't know the names of the other candidates.

How are you making out with the Department of Agriculture?

Sincerely yours,

Paul Armer

PA:mt

Robert V. Head 9102 Live Oak Lane Upper Marlboro, Maryland 20870

January 31, 1975

Mr. Paul Armer Contributing Editor Datamation 1801 S. LaCienega Boulevard Los Angeles, California 90035

Dear Paul:

Late last year the Congress passed Public Law 93-495 creating a National Commission on Electronic Fund Transfers to study all aspects of the new technological, managerial and social phenomenon of EFTS. The Commission, consisting of representatives of the banking and retailing communities, as well as key government agencies and public interest organizations, is now being formed, and I am under consideration for the position of Executive Director of the Commission's staff.

Knowing that you would have an interest in this new area of applied systems technology, along with personal knowledge of my own background, I am writing to request your support of my candidacy. A letter along these lines from you to the President, to Mr. Rumsfeld or to Mr. William N. Walker at the White House would be helpful and genuinely appreciated.

Sincerely,

Robert V. Head

7 February 1975 The Society of Certified Data Processors 38 Main Street Hudson, Ma 01749 Gentlepeopte: As a member of the Board of Directors of ICCP, I would be interested in receiving a copy of the model legislation concerning licensing for data processing professionals, which you have proposed to state legislatives. Sincerely yours, Paul Armer PA:mt

7 February 1975

NEXUS P.O. Box 1517 Attn: Department 9927A Costa Mesa, California 92626

Gentlepeople:

Please send me information on your computer based bibliographic system.

Sincerely yours,

Paul Armer Fellow

PA:mt

There wy own Egpres of these vow.

Thouses,

1. DOES this MEAN that

YOU ARE GETTING All

the NAS REPORTS

directly AND do Not

WANT ME to PASS

them Along to YOU AS

they come in in the future?

2. Did YOU gET the volume on "Ethics
of HEAlth CARE" OKAY?

3. The only report from you that WE have to include in the POSTS report for 1973-1974 is the one entitled

How Safe is Safe? - A System-Analytic

Viewpoint. Are there others? Did you

sive any oral presentations that we should

include? (SEE point #1 on the first page of

the attached memo)

MEMORANDUM

To; Paul Armer

From: George Quester Sy 12

Here's the reckoning for the January 16 evening's entertainment for Mr. and Mrs. Sidney Graybeal at the Peking Restaurant. Total cost \$170.74 , receipt attached, a total of 19 people in attendence as follows:

> O.M. Wilson, and spouse CASBS G. Quester L. Weiler U. Nerlich J. Lederberg S. Drell

Stanford Arms Control Program

J. Barton and spouse A. Chadwick W. Panofsky----J. Lewis

Evening's guests

S. Graybeal and spouse

5 February 1975

Senator Alan Cranston
United States Senate Office
Building
Washington, D.C. 20510

Dear Senator Cranston:

I have a favor to ask. To further my research efforts I need a copy of "Protecting Individual Privacy in Federal Gathering, Use and Disclosure of Information--Report of the Committee on Government Operations to Accompany S 3418--U.S. Senate--September 26, 1974." Can you help me?

Sincerely yours,

re seeding you taret acres the MES/AFAFAFA

Paul Armer Fellow

PA:mt

0

5 February 1975

Mr. Mort Bernstein System Development Corporation 2500 Colorado Santa Monica, California 90406

Dear Mort:

On page 44 of FJG's transcript of the "16th Annual Computing Symposium," you make reference to a 1973 report from the Census Bureau which shows that "something like 82% of those surveyed had received significant amounts of training beyond their formal educations . . . "Can you give me more details on that report?

When are we going to see you up this way again?

Best regards,

Paul Armer

PA:mt

SPEED LETTER®

TO JOE CHNNINgham	FROM_	PAUL ARMER
ACM		105 Hillside AUE
	The state of the s	MEND PARK CA 94025

SUBJECT ACM TRAVE!
MESSAGE DATE 2-5 1975
DEAR JOE - ENCLOSED IS A TRAVEL EXPENSE REPORT
FOR MY Attending A MEETING OF the ICCP BOARD
IN Chicago ON JANUARY 24 & 25, 1975 AND A MEETING of the
Ad- HOC COMMITTEE ON SELF- ASSESSMENT TESTING ON JANHARY 23, 1975.
I'm told by your staff that AN ACM FORM FOR TRAVEL EXPENSES
does not exist, so you're getting my statement there of.
Also Enclosed is an unapproved copy of
the "Authorization form" for that trip. The covering MEMO
ARRIVED Shortly before My heading for Chicago so I took
It along to Chicago, thinking JEAN Might be there (she was
INVITED) but she wasn't Should JEAN SIGN SUCH AuthORIZATIONS
FOR MY ICCP TRAVELS? DO I NEED DNE FOR EACH TRIP
INVITED), but she wasn't. Should JEAN SIGN SUCH AUTHORIZATIONS for My ICCP TRAVELS? DO I NEED ONE FOR EACH TRIP OR CAN I MAKE OUT ONE FOR THE BAJANCE OF THE YEAR DATE 19
-FOLD
THE RESERVE OF THE PARTY OF THE
SIGNED

Grayline "SNAP-A-WAY" FORM 44-912 3-PARTS
WILSON JONES COMPANY © 1961 PRINTED IN U.S.A.



THE UNIVERSITY OF TEXAS AT AUSTIN AUSTIN, TEXAS 78712

Office of the Vice-President and Dean of Graduate Studies

January 27, 1975

Dr. Paul Armer Center for Advanced Study in the Behavioral Sciences 202 Junipero Serra Boulevard Stanford, California 94305

Dear Paul:

Thank you for your recent letter concerning the acknowledgement to be made of NSF support of our race volume. Unfortunately, that book has gone to bed and there is nothing we can do about the Preface at present, although the disclaimer matter is amply covered in its current form. We will make an appropriate adjustment when the volume is reprinted.

I might note that I discussed this matter with George Brosseau and he saw a copy of the Preface in ample time to amend it if he wished to do so. Consequently, I think our conscience can be perfectly clear on this matter.

With best wishes.

Cordially yours,

Gardner Lindzey

GL/lb

cc: Professor John Loehlin Mr. W. Hayward Rogers

PURDUE UNIVERSITY COMPUTER SCIENCES MATHEMATICAL SCIENCES BUILDING WEST LAFAYETTE, INDIANA 47907

January 27, 1975

Paul Armer Center for Advanced Study in Behavioral Sciences 202 Junipero Suma Blvd. Stanford, CA 94305

Dear Paul:

I want to personally thank you for your efforts on the Self-Assessment Committee. The Chicago meeting was very productive and your contribution was invaluable. We have an outstanding committee and I consider your expertise, interest and experience a key ingredient.

With some thought and work these next few weeks, we can submit a report to ACM that will leave us with a "good feeling".

It's a real priviledge to work with such a rare group and I'm really pleased that you are participating.

Sincerely,

Terry J. Frederick, Chairman ACM Ad Hoc Committee on Self-Assessment Tests

TJF/cam

23 January 1975 Dr. Gardner Lindzey Vice-President and Dean of Graduate The University of Texas at Austin Austin, Texas 78712 Thanks for sending me a copy of your letter to Brosseau. NSF has Dear Gardner: asked that any books resulting in part from a fellowship at the Center supported by our POSTS grant should not only acknowledge NSF support but also include a "disclaimer" clause. They are not just being sensitive about the race differences volume -- their request is to apply to Thus the acknowledgment should read something like the following: all books. "The preparation of the material in this volume was supported in part by National Science Foundation Grant No. SSH71-01834 A01 from the RANN (Research Applied to National Needs) Program of NSF to the Center for Advanced Study in the Behavioral Sciences and in part by [whomever else should receive an acknowledgment for support]. Any opinions findings, conclusions or recommendations contained herein are those of the authors and do not necessarily reflect the view of any sponsor." Best regards, Paul Armer PA:mt

22 January 1975 Professor Graham Allison Kennedy School of Government Harvard University Cambridge, Massachusetts 02138 Dear Graham: I need your help in meeting the reporting requirements of the NSF grant to the Center for POSTS. To be specific, enclosed is a copy of the memo which Met Wilson sent to all the Fellows in June, 1974. What I need now is a response to point #1 of that memo. Can you help me and the Center? Best personal regards, Paul Armer PA:mt Similar letter to Elkana Tendly Coozier March. 1 Encl:

American Federation of Information Processing Societies, Inc. Reply to: 225 Warren Road San Mateo, California 94402 415-342-4133



January 22, 1975

George Glaser President

Mr. Robert G. Shaw
Deputy Special Assistant
to the President
The White House
1600 Pennsylvania Avenue
Washington, D. C.

Dear Mr. Shaw:

This letter is in response to your request that AFIPS suggest several individuals whom we endorse for appointment as public members of the National Commission on Electronic Fund Transfers.

Three candidates (including myself) are listed below. In our opinion, each has both the technical capabilities we believe would be useful to the Commission in its deliberations and the personal qualifications that would make him an active and substantive contributor to those deliberations. The sequence in which the names appear is not intended to suggest a priority.

Mr. Paul Armer: Mr. Armer is currently a Fellow at the Institute for Advanced Study in the Behavioral Sciences. His longstanding concern with the social implications of technology, and specifically those of computer technology, is best demonstrated by the following examples: he has testified on the privacy aspects of the cashless and checkless society before the Senate Subcommittee on Administrative Practice and Procedure (April 1968), and is the author of a report submitted to the National Commission on Technology, Automation and Economic Progress (February 1966). He also has

presented a paper titled "The Individual: His Privacy, Self-Image and Obsolescence" to the Committee on Science and Astronautics of the U.S. House of Representatives (January 1970). Mr. Armer is a past president of AFIPS (1968-69).

Professor Bernard A. Galler: Professor Galler is Chairman of the Computer and Communications Sciences Department at the University of Michigan, and the Chairman of AFIPS' Special Committee on Electronic Fund Transfers. He is a recognized authority on programming languages and a former president of the Association for Computing Machinery, a professional society representing approximately 25,000 professional computer programmers and systems analysts.

Mr. George Glaser: I am an independent consultant on the management of technology and the management of data processing. My experience encompasses a variety of assignments dealing with the structure and economics of the computer industry for large corporations both in the United States and Europe over a period of fifteen years. In addition, I have been a hardware engineer, analyst, and programmer. For the past three years, I have been a consultant to the management of a bank credit card service organization where I have been directly involved in the implementation of several largescale national systems, including those for credit authorization, sales draft data transfer, and pointof-sale terminals. I am currently serving as AFIPS president.

Attached to this letter are further biographical details on each of our three nominees, as well as selected articles and/or speeches that should give you additional insight into our capabilities. I also am enclosing a brochure which describes the fifteen societies that now belong to AFIPS.

If there is any additional information that would be useful to you we would, of course, be pleased to provide it; or if there are any questions that I might answer directly, please call.

Again, we very much appreciate the opportunity to have our nominees considered so thoughtfully.

Sincerely yours,

George Glaser

GG:rlc

enclosures

202 Junipero Serra Boulevard . Stanford, California 94305

Telephone (415) 321-2052

22 January 1975

POSTS

As the Board is aware, three core projects are underway within the POSTS framework in 1974-75. They are:

- a) Strategic Policy as Impacted by Technological and Social Changes
- b) Quality of Health Care
- c) Budgetary Decision Making

The Strategic Policy group has sponsored a weekly seminar which has brought a half-dozen or so individuals from other institutions to the Center to interact with the group. The existence of the Arms Control and Disarmament Project on the Campus has been helpful to the Center's project in several ways. Outside scholars find a joint invitation from both groups more attractive and we can share the expense of bringing such people to Palo Alto. Further, the people at Stanford interact with our project in a way that is helpful to both groups.

The Quality of Health Care group has also been meeting frequently and drawing upon medical scholars at Stanford, at the University of California at San Francisco, at Kaiser, and at other institutions in the area. Though the group frequently meets as a group and almost everyone reads and reacts to everyone else s output, the group has split into a number of working groups, where one individual may be a member of several groups. For example, Fine and Parson are investigating the use of manuals for evaluating health care, using the Stanford Hospital as a test bed. Peterson, Stein and Wray are asking themselves 'What are the fundamentals' underlying the quality of health care?" and "How does the existing system measure up?" Particular attention is being given to assess to health care: Mechanic has completed the first draft of a book examining health care bureaucracies with the added hope that the lessons learned will have wider implications for service institutions in fields other than medicine. Parson & Mechanic are looking at the problem of how to educate those doctors who will be responsible for primary care. The above are illustrative, not exhaustive.

The Budgetary Decision Making group is the most cohesive of the three groups, which is not surprising, considering that it is the smallest

and that Wildavsky, Dempster and Davis were collaborators before coming to the Center. They, too, have held a number of seminars which have been well attended by other Fellows.

Work on Science Indicators continued. In late December, early January, Merton, Thackray and Zuckerman met with Elkana in Israel (to work on the papers resulting from the conference held at the Center last June. (Lederberg was unable to make the trip.) Three additional papers not given at the Conference have been obtained for the final publication.

Elsewhere in this docket under "Statement of Expenditures" you will find information on POSTS expenses through the end of calendar 1974. The financial picture remains essentially unchanged from that presented at the last meeting of the Board. To summarize, we anticipate having \$225,000 to \$240,000 in the grant for 1975-76.

cc: Preston Cutler
Jane Kielsmeler

20 January 1975

TO: Jane Kielsmeier

SUBJECT: Visit of Doug Bennett

FROM: Paul Armer

Aaron Wildavsky has invited Douglas Bennett to lecture and consult with the budgetary decision making group on Monday, February 10, 1975. Bennett is Staff Director of the Senate Budget Committee. The Center will pay coach class transportation and expenses. No honorarium is involved. Aaron would like to have a check for \$368.00 to give Bennett when he is here to cover his airfare. Bennett will bill expenses to us on his return home.

Met had previously approved this expenditure (and one more like it at some future date) under POSTS.

cc: Alan Henderson Aaron Wildavsky 20 January 1975

Dr. Alan M. Thorndike Department of Physics Brookhaven National Laboratory Upton, New York 11973

Dear Dr. Thorndike:

Thank you for your letter of January 15, 1975. The literature of EFTS is not large. There is the Arthur D. Little report, entitled "An Assessment of Less Cash/Less Check Technology," which I discussed in San Diego. Unfortunately, it's out of print. The next time you visit OTA, look up Joseph Coates. He has recently moved to OTA from NSF, where he was the program manager responsible for awarding the grant to Arthur D. Little. So he may be able to find a copy of the report for you or lend you one to copy. He might also be able to give you other references. I would also suggest that you look up Craig Desker of the OTA staff. He may be able to give you references to EFTS materials.

My file on EFTS is several inches thick but is made up almost entirely of newspaper clippings, news releases from organizations like Bankamericard, and similar items. To list each item would be a major task. It would be easier to copy them than to list them.

You might bet a copy of "Privacy & Security in Databank Systems: An Annotated Bibliography, 1970-1973" by M. Kathleen Hunt and Reim Turn. It's a RAND Corporation report, R-1361-NSF, dated March 1974. Two earlier RAND bibliographies would also be useful. They have the title "The Problem of Privacy in the Computer Age: An Annotated Bibliography." There are two volumes with RAND numbers RM-5495-PR/RC (December 1967) and RM-5495/1-PR/RC (December 1969). The author of both is Annette Harrison. The three bibliographies each have a few references to EFTS matters. At times the references may be to cashless or checkless rather than EFTS.

Re people in your vicinity interested in in EFTS, there are several:

Dr. Bruce Gilchrist
Director of Computing Activities
Columbia University
University Computer Center
612 W. 115th Street
New York, New York 10025
212-280-3031



BROOKHAVEN NATIONAL LABORATORY

ASSOCIATED UNIVERSITIES, INC., UPTON, L.I., N.Y. 11973

DEPARTMENT OF PHYSICS

TELEPHONE: (516) 345- 3729

January 15, 1975

Dr. Paul Armer Center for Advanced Study in the Behavior Sciences Stanford University Palo Alto, California

Dear Dr. Armer:

The talk which you gave at the Forum on Computers and Public Policy on questions associated with computerized funds transfer was one that I found interesting and thought-provoking. I have no personal familiarity with that field, being a physicist involved for quite a long time in various scientific computer applications. I would, however, like to become more familiar with the status of electronics funds transfer technology, and thought you might be able to suggest some references that I might read, or possibly some people in my vicinity who are working on such things.

There is some possibility that my interest may be more than academic. I spend a small fraction of my time serving as a consultant to the Office of Technology Assessment in the Congress, and this topic is one in which they may potentially be interested. You may also be contacted by its Director, Mr. E. Q. Daddario, since I took the liberty of mentioning your name to him as someone concerned about the future of electronic funds transfer technology. One of the main duties of the Office of Technology Assessment is to develop information on the social impacts of new technology as they may be related to the needs for legislation.

In addition, Mr. Daddario is a statutory member of the National Commission on Electronic Fund Transfers established under Public Law 93-495, dated October 28, 1974. This commission will have a duty to formulate federal policy in the area. It appears that it is not yet active since the complete membership remains to be appointed by the President. The law provides for a two-year life for this commission. You may wish to be in contact with this Commission since it should have a significant effect on future policies.

Alan Thom dike

Alan M. Thorndike

202 Junipero Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

17 January 1975

Mr. Charles C. Joyce
Office of Telecommunications Policy
Room 712
1800 G Street, N.W.
Washington, D.C.

Dear Mr. Joyce:

Mr. George Glaser, President of the American Federation of Information Processing Societies, has told me of his meeting with you on 10 January 1975, during which my interest in Electronic Funds Transfer Systems was discussed. EFTS is a topic in which I have had a strong interest for a number of years. I am especially concerned with the implications of EFTS on privacy. In 1968 I testified on the subject before the Subcommittee on Administrative Practice and Procedure of the Senate Committee on the Judiciary. I have maintained that interest and have been lecturing on EFTS in recent months.

To give you a better idea of my background, I am enclosing a copy of my vita, a copy of my testimony in the Senate in 1968, a copy of testimony before the Panel on Science and Technology of the House Committee on Science and Astronautics in 1970 and a copy of the report I prepared for the National Commission on Technology, Automation and Economic Progress in 1965.

If there is anything that I can do to further the work of the EFTS Commission, I would be pleased to do so.

Sincerely yours,

Paul Armer

Fellow.

PA:mt

cc: George Glaser

202 Junipero Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

17 January 1975

Mr. Charles C. Joyce
Office of Telecommunications Policy
Room 712
1800 G Street, N.W.
Washington, D.C. 20584

Dear Mr. Joyce:

Mr. George Glaser, President of the American Federation of Information Processing Societies, has told me of his meeting with you on 10 January 1975, during which my interest in Electronic Funds Transfer Systems was discussed. EFTS is a topic in which I have had a strong interest for a number of years. I am especially concerned with the implications of EFTS on privacy. In 1968 I testified on the subject before the Subcommittee on Administrative Practice and Procedure of the Senate Committee on the Judiciary. I have maintained that interest and have been lecturing on EFTS in recent months.

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Sincerely yours,

Paul Armer Fellow

PA:mt

cc: George Glaser

202 Junipero Serra Boulevard . Stanford, California 94305

Telephone (415) 321-2052

17 January 1975

Mr. Charles C. Joyce
Office of Telecommunications Policy
Room 712
1800 G Street, N.W.
Washington, D.C.

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If there is anything that I can do to further the work of the EFTS Commission, I would be pleased to do so.

Sincerely yours,

Paul Armer Fellow

PA:mt

cc: George Glaser

· Elliott I ORGANICK PETER DENNING

PAUL ARMER 202 JUN-PERO SERRA BIUD STANFORD, CA 9430 S

SUBJECT

1/16/74

Congratulations on the Special Issue on PROGRAMMING of ACM Computing Surveys. It's something that All of ACM CAN BE PROUD of

CC: JENN SAMMEH

Daul

SIGNED

Rediforme 45 471

SEND PARTS 1 AND 3 WITH CARBON INTACT - PART 3 WILL BE RETURNED WITH REPLY

Privacy Journal

An Independent Monthly on Privacy in a Computer Age

P.O. Box 8844

Washington, D.C. 20003

(202) 547-2865

ROBERT E. SMITH Publisher

January 15, 1975

Paul Armer Center for Advanced Study 202 Junipero Serra Boulevard Stanford, California 943305

Dear Paul,

Many thanks for the EFTS materials. I have the Arthur Little "study" and was appalled by it.

Subscriptions are coming in at a steady pace, enough to keep us going. There really is broad-based interest in the issue. A Datamation item would really help. I have been unsuccessful with its Washington correspondent, but hope your influence has worked. Privacy Journal is clearly the sort of new literature that is news to Datamation readers.

Keep in touch.

Yours truly,

Robert E. Smith

15 January 1975 Program of Policy Studies in Science and Technology George Washington University Washington, D.C. 20006 Gentlepeople: I have read of your report, "Implementing Technology Assessments," by Kasper, Logsdon & Mottur, in the September-October 1974 issue of Public Science. Can you send me a copy or tell me how I might obtain one? Thank you, Paul Armer PA:mt

15 January 1975 National Commission on Libraries and Information Science Suite 601 1717 K Street, N.W. Washington, D. C. 20036 Sirs: I understand a revised draft of A National Program for Library and Information Services is available from your office. Would you please be so kind as to send me a copy. Thank you. Sincerely yours, Paul Armer PA:mt

HARVARD UNIVERSITY PROJECT ON EFFICIENCY OF DECISION MAKING IN ECONOMIC SYSTEMS 1737 CAMBRIDGE STREET, ROOM 401 TELEPHONE (617) 495-4587/4588 CAMBRIDGE, MASSACHUSETTS 02138 January 14, 1975 Dr. Paul Armer Center for Advanced Study in the Behavioral Sciences 202 Junipero Serra Boulevard Stanford, California 94305 Dear Paul: I have your notice cancelling the meetings of the POSTS Advisory Council. As it happens I will be in Palo Alto on February 25th on other business. If you and Met think it worthwhile, I'd be glad to drop over to the Center an hour or so, if there is anything especial to discuss. Yours, Kenneth J. Arrow James Bryant Conant University Professor KJA/cay

14 January 1975 Bureau of Educational and Cultural Affairs Department of State Washington, D.C. 20520 Gentlepeople: I am interested in your "Directory of Contacts for International Educational, Cultural, and Scientific Exchange Programs--September 1973, S 1.67/4:973." Can you send me a copy or tell me how I might obtain one? Thank you, Paul Armer PA:mt

Mr. Charles C. Joyce Office of Telecommunications Policy Room 712 1800 G Street, N. W. Washington, D. C.

Dear Charles:

Bob Rector and I thoroughly enjoyed the lunch with you and Chris Heller, and we appreciate the opportunity to tell you of AFIPS' plan for a Washington office.

As we discussed, I have asked Paul Armer to write to you concerning his interest in the EFTS Commission and to supply you with additional information about his background. As we also discussed, I will send similar material on both Armer and myself to Mr. Walker in the President's office.

I look forward to our next opportunity to meet. According to our present plans, we should have our Washington representative on the job on or about March 1, and I know you will want to meet him.

Cordially,

George Glaser

GG:rlc

cc: R. Rector

K. Uncapher

P. Armer

8 January 1975 Dr. Olaf Helmer University of Southern California Graduate School of Business Administration Center for Futures Research Los Angeles, California 90007 Dear Olaf: It was great to see you, Maggie and Monica. But it was all too short. Monica has certainly grown into a delightful and charming young lady. I have a favor to ask of you. Will you ask your publications people to send me a copy of FI5 on underemployment by O'Toole and a copy of "Case Study of Telecommunications -- Transportation Tradeoffs" by Lopez and Gray. Both publications were cited in the December 1974 issue of your Center's Newsletter. Love to Maggie and Monica. Paul Paul Armer PA:mt

8 January 1975

Dr. Martin L. Ernst Arthur D. Little, Inc. Acorn Park Cambridge, Massachusetts 02140

Dear Dr. Ernst:

Thank you for your letter of January 2 and its enclosure. I would be pleased to accept your invitation to participate in the review process of the draft of the final report. I look forward to receiving a copy of the draft.

Sincerely yours,

Paul Armer

PA:mt

bcc: Dr. Paul Armer THE UNIVERSITY OF TEXAS AT AUSTIN AUSTIN, TEXAS 78712 Office of the Vice-President and Dean of Graduate Studies January 7, 1975 Dr. George E. Brosseau, Jr. Program Manager Office of Exploratory Research and Problem National Science Foundation 1900 Pennsylvania Avenue, Northwest Washington, D.C. 20550 Dear George: As a partial follow-up to our last discussion of the POSTS project in Palo Alto, I am sending (separately) a copy of the page proofs of our race differences volume. You might find at least the first few chapters and the two concluding ones reasonably interesting and I think they give the general flavor I trust I will see you again before too long, either in Washington or in Palo Alto. With best wishes. Cordially yours, ORIGINAL SIGNED GARDNER LINDZEY Gardner Lindzey GL/1b

202 Junipero Serra Baulevard • Stanford, California 94305

6 January 1975

O. M. Wilson TO:

Paul Armer FROM:

SUBJECT: Summary of our discussion of the POSTS Advisory Council

Jane Kielsmeier and Preston Cutler COPIES:

In view of the fact that we have plans for all of the funds in the existing grant for POSTS, no further program planning by the advisory council is called for. The advisory council might be helpful in molding a follow-on proposal. However, a decision to use the council in that fashion should await a meeting between representatives of the Center (0. M. Wilson and G. Lindzey) and of N.S.F. (Stever et al) to discuss general support of the Center by N.S.F. That meeting is scheduled for February 20.

During Gardner Lindzey's visit to the Center around February 6, a meeting should be set up between O.M. Wilson, Gardner Lindzey and Paul Armer to discuss the future of the advisory council. Meanwhile, Armer is to write to the members of the council, informing them that the February and May meetings of the Council are cancelled and that the next meeting, if any, will be scheduled at a mutually convenient time.

Paul

202 Junipero Serra Boulevard • Stanford, California 94305

Telephone (415) 321-2052

6 January 1975

TO: Members of the POSTS Advisory Council

SUBJECT: February and May Meetings of the Council

FROM: Paul Armer

Since we have no uncommitted funds to program under the existing grant, it has been decided to cancel the meetings of the council previously scheduled for February and May of this year. Early in February, Met Wilson and I will meet with Gardner Lindzey to plan future activities of the council. I will inform you of what transpires at that meeting. Should we decide on a meeting of the council prior to this summer, it will probably not be held in connection with a meeting of the Center's Board, but we will find a mutually acceptable time.

Paul