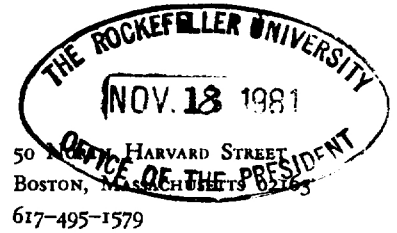


HARVARD UNIVERSITY

HOWARD L. RESNIKOFF
ASSOCIATE VICE PRESIDENT FOR
INFORMATION SERVICES AND TECHNOLOGY



2 November 1981

NSF - ↓

Dr Lewis M. Branscomb
Vice President and Chief Scientist
International Business Machines Corporation
Armonk, New York 10514

Dear Lew:

I am writing to you in your capacity as Chairman of the National Science Board to tell you what has transpired with the report of the "Working Group on Information Technology" recently accepted by the Advisory Committee to the Division of Information Science and Technology, and also to express my deep concern about the Foundation's plans to sharply curtail research support in this important area.

You will recall having read and commented on the "Information Technology" report some months ago. Since then copies have been distributed to various industrial, university, and government leaders on a limited basis largely in response to personal interest and suggestions of people including Ernest Ambler of the Bureau of Standards, Bill Baker of Bell Labs, Martin Cummings of the National Library of Medicine, David McManis of the National Security Agency, Frank Press at the National Academy, and Philip B. Yeager, General Counsel to the House Committee on Science and Technology. Recipients include Richard Beal and Jay Keyworth in the Executive Office of the President, Senator Harrison Schmitt, Congressmen Albert Gore, George Brown, Jr., Timothy Wirth, Glenn English, and Byron Dorgan; Ben Erdman of the Defense Communications Agency, James Fazio of the Defense Intelligence Agency, and George Rogers of the Intelligence Community Staff; and William Carey of the AAAS. I have received numerous replies and comments, including your own, all of them acknowledging the national need in this area and generally supportive of the report's recommendations. Discussions with university leaders underscore and confirm these concerns.

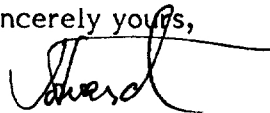
While others are calling for greater national emphasis on information science and technology, NSF has: 1) not filled, nor shown any intention of filling, the position of Director of the Division of Information Science and Technology, vacant since February; 2) reduced the Division's FY '82 budget in the most recent round by a percentage substantially greater than any other Division in its Directorate, and perhaps in the Foundation as a whole; 3) proposed that the Division's budget will be held constant in current dollars under all scenarios in FY'83 and future years; 4) eliminated the Information Technology program element, which is the applied science component of the Division, in contradiction to the so recently proposed policy of support for applied as well as basic science. In this regard, it is instructive to note that elimination of that program element also eliminates support for researchers such as Donald Knuth for work which Computer Science does not want to support (because it is information, not computer, science).

The combined effect of these measures will eliminate the Division of Information Science and Technology as a viable research supporting unit. And it seems that is exactly the intent, for already there is considerable talk at NSF about folding the Division into the Computer Science Section. Some people expert in distant fields such as chemistry may believe that information science is nothing but computer science in disguise, but examination of the grantees of the Division tells a different tale. Approximately half of the awards (I do not have the figures before me) go to researchers who are more closely identified with cognitive than computer science. Their work would not be supported -- and should not be supported -- by the Computer Science Section. It also would not be -- and has not been -- supported by the Behavioral and Neural Sciences Division. There is a distinct community of researchers of more than negligible quality who identify the support program of the Information Science and Technology Division as their natural home.

I can understand that decisions frequently must be made with larger problems in mind, and that expediency may sometimes be the governing modality. But even from this standpoint and realizing that the Foundation is undergoing a very trying time, the decision to cut back and eliminate information science and technology seems wrong. First, after all the public concern expressed about dwindling support for the behavioral and social sciences, it appears contradictory to further cut support for the behaviorally related research now supported in IST since that part of the program will certainly not be picked up by the Computer Science Section, and those researchers will simply add to the pressures on the weakened behavioral and social science budget. Moreover, the Administration appears to understand and perhaps even favor information science and technology; would this not be an appropriate vehicle for supporting those parts of behavioral science research which are intrinsically related to information science (such as behavioral aspects of information transfer, and human factors issues)? Last December, foreseeing much of the present embattled state of the behavioral and social sciences, Dick Atkinson recommended that NSF fold the behavioral and social sciences under an information science umbrella (whether as a Division or a Directorate does not really matter), recognizing both the intellectual validity of the concept and its consonance with the times; his idea makes both tactical and strategic sense.

At a time when industry and academia sense the importance of more rapid progress in information science, when other nations are developing research programs modeled after NSF's initiative in information science and technology, it seems a pity that short term internal issues should be permitted to dominate the larger NSF vision. I hope that you will find the opportunity in a busy schedule to give some thought to what NSF should be doing in this area whose importance, as you know at least as well as I, should not be measured by its current budget share at the Foundation.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Howard L. Resnikoff", with a long horizontal flourish extending to the right.

Howard L. Resnikoff