Date: October 28, 1974

To: Distribution

From: William F. Miller, Vice President and Provost, and Professor of Computer Science

Subject: Basic Research on Advanced Memory Systems for Computers - a meeting

Dear Colleagues:

An opportunity may soon arise for Stanford scientists in many scientific disciplines to participate in a project aimed ultimately at the development of advanced technologies for computer memories. The initiative for this project comes from the Advanced Research Projects Agency (ARPA), a federal agency that has supported a great deal of basic research at Stanford in the past, e.g., the Center for Material Sciences Research and the Stanford Artificial Intelligence Laboratory.

The intent is to support very basic research that looks far into the future (10-15 years); to attack the problem on a broad front (from electronics, biological and chemical technologies and techniques on the one hand, all the way to advanced programming techniques and psychological models of memory on the other—a complete spectrum); and to conduct the inquiries in a highly interdisciplinary manner. ARPA's bet, in this case, is on basic research and interdisciplinary mixing. Stanford is seen as one of a very few institutions at which such a program in advanced computer memory systems could be conducted with excellence.

Discussions about this project at all levels are in the most preliminary stages. It is appropriate for a spectrum of Stanford scientists to get together now to discuss the nature of a possible Stanford interdisciplinary consortium in this area, and the intensity of the scientific interest therein.

I would like to invite you to such a discussion. It will be held in the Board Room of Building 10 on November 5 at 7:30 p.m. The evening time was chosen to minimize the scheduling conflicts that will inevitably arise when so many individuals are involved. If you cannot attend, it would be helpful if you would suggest a substitute who could represent your point of view (at least to a first approximation) on how basic research in your science area might fit into the overall interdisciplinary picture we might assemble here.

The prospects for fairly long-term funding for basic research in this broadly-conceived project are good. The problem area is exciting and important. My own interest is primarily substantive, not administrative. I urge you to attend if you can.

Best regards,

William F. Miller
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Professor William A. Little, Physics
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