

MAR 22 1971

DATE: March 19, 1971

To : Chuck Dickens

FROM : T. David Phillips and Ron Jamtgaard *RD*

SUBJECT: Approach to Analysis of Campus-ACME Facilities Merger

This Wednesday, we had lunch with Drs. Lederberg, Levinthal, and Feigenbaum. Dr. Lederberg initiated the discussion with a brief recap of the Medical School's computing requirements. Among the requirements were: (1) Strong support for small machine users; (2) communications among various data bases, (3) minimum disruption to ongoing research programs currently using PL/ACME, and (4) cost-effective computing where the effectiveness is stressed along with the cost.

Perhaps the most significant single topic to be discussed was the purpose of the analysis of the Campus-ACME merger which Dr. Lederberg requested at the last Computer Facilities Committee meeting. Dr. Lederberg stressed that this analysis should be totally divorced from the issue of outside computing dollars on the 360/67. The analysis should be based upon our mutual concern of providing the most cost effective and responsive computing to the university community.

Dr. Lederberg indicated that NIH was likely to continue to support computing at Stanford at approximately the current dollar rate. He also stated that NIH wanted to support specific development tasks rather than generalized computing subsidies for Stanford Medical School. He felt that approximately 40% of the NIH funding could be spent for systems development activity, most of which would be accomplished presumably through SCC. He stated their were two other types of support that he would anticipate from the grant. Approximately 30% of the grant might be spent for applications having a heavy computer science flavor. The remaining 30% would be devoted to more clinically oriented applications. Future income from the Medical School from computing has been estimated at \$250,000 - \$400,000. Dr. Lederberg felt that \$250,000 was a reasonable and conservative estimate. It was recognized that current ACME users obtain far more service for the dollar than they are likely to obtain on the Campus Facility or any other facility in view of the heavy subsidy of ACME by NIH. This fact would influence the amount of work which would transfer to any other computing system if ACME were no longer available or if the general subsidy were no longer available.

During the luncheon Ed Feigenbaum described several facets of the ARPA network in which Dr. McCarthy's A.I. Lab participates. The network will soon include a 10^{12} bit data store and hardware links among over a dozen computers operating at 50 kilobaud. In addition, a new hardware linking device has been developed to permit persons with only a terminal rather than a full computer system to participate in the entire network. The spectre of a California or National

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Computer was raised as a potential development of the next five years by Feigenbaum. Lederberg questioned the wisdom of moving to any new generation of large hardware if the potential of the "California" system appeared realistic over a five year period.

Dr. Levinthal presented an organizational concept which would link computing and electronic engineering and development efforts in the Medical Center. Specifically, the new "division" would include a hardware development group, a hardware service and maintenance group, and a Medical Center group on computing which would handle applications programming plus hospital information systems. Large computing services would be purchased from SCC along with systems development activity.

Those present expressed early in the meeting a feeling that such a meeting was overdue and a need for early planning of ACME's future existed now. Some of ACME's planning must be contained in the annual report to be completed in May, 1971.

RJ/ma

cc: J. Lederberg
E. Levinthal
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