

So, the emphasis is on the fact that much more planning is needed for such a vast undertaking as envisioned in this title but nevertheless it has been going on for a period of years.

The question was raised concerning the costs of such a proposal. I would agree with those who have testified previously that the funding suggested in this bill is adequate for the present year because a great deal of planning needs to be done and the development of staffs and so on, who are capable of expanding these programs as they are worked through.

But it should be recognized that in the future years the costs will be much greater. This proposal is for a prototype Edunet, educational network, which requests \$1 million for the first year, \$3 million essentially for the second year, and \$6 million for the third year.

In the second year, after a first year of planning and collecting of staff on at least three campuses in five parts of the United States which would integrate regional networks, the narrow band network, a number of telephonic connections would be implemented.

In the third year a two-way television wide-band network would be implemented as well. So these costs are the costs of interconnection and of administration.

The basic principle of this bill being included in this book as well that the universities pay their own costs for the local terminals and for the local activities that they carry on.

I would like to emphasize that the suggestion here is the development of a prototype. The prototypes should put major emphasis on software. This is unquestionably true. The advancement of software technology is not so great as the advancement of the hardware technology. It is not a question of one or the other. It really must be both at the same time.

Our proposal and the bill includes opportunities for both the software and the hardware development.

The emphasis is on the colleges and universities at first.

We would point out that small private colleges as well as large universities are associated with our organization and certainly will be concerned with it.

There is one regional group, for example, in Pennsylvania of over 50 colleges, all of which are small, that are interconnected by a regional network of this sort. The universities can contribute in their traditional research and development role. Once it has been demonstrated that there are effective uses of such programs possible, then it is the hope, I am certain, of all of the institutions concerned that the network will spread to small colleges, to libraries, to museums, to hospitals, and indeed very likely ultimately to private homes.

I was requested by Governor Romney, when I was a professor at the University of Michigan, the last year or two, to plan for the development of a statewide network for Michigan among the three major universities. It was his request at that time and our expectation that once it was worked out among the three main universities in Michigan the other colleges and universities, public and private, would be associated and then the State government system, the libraries and so on throughout the community, were industry, incidentally, subscribing