On occasions like this it is fairly normal for people like me to give forth with an enormous number of pleasantries and platitudes and commentary. The interesting thing is that as I thought about my remarks and the enormous pride I have in Georgia Tech and Control Data—all those platitudes and pleasantries didn't sound nearly so hollow as they have on some other occasions.

But all of us, most of all, take pride and get satisfactions from leadership. Particularly when that leadership is built step by step with a great deal of personal effort and limited resources does it bring the greatest source of pride.

And in the leadership of Georgia Tech, all of us who have ever been associated with it take just that sort of pride. While this is true in its many areas of education and research, the one I have known is that of computing. And it has been my pleasure to have been an associate of those who over the past twenty years have brought leadership to Georgia Tech in computing.

I should add that anyone who thinks leadership is an easy role or that those who bring leadership to an enterprise are always to be found in some historic pose giving forth with profound words of wisdom should have observed with me in 1955 my first sight of Charlie Reed standing in a sea of paper tape with additional garlands of the staff draped around his neck—having words with a poor and inanimate device otherwise known as an 1101 computer.

Likewise, it must also not be assumed that business decisions come after sober reflections and careful analysis of economic alternatives. In another part of the United States at about that same time a small group of computer people were forming Control Data Corporation. I was recalling the
other day that Control Data's first acquisition --Cedar Engineering came about very simply because the company had must obtained its first contract with the U.S. Navy and simply had to quickly have a manufacturing facility to fulfill government contracting requirements. Cedar has been known to be CEC's production company -- a co. of some 300 million.

Over the past twenty years Control Data has built a strong and inextricable partnership with the world's educational institutions. We engage this partnership in many ways and in many places. With the city of New York we have embarked on a project of learning centers with the government of Iran and the State of Minnesota a project to bring vocational training to the people of Iran. And of course, for universities and colleges around the world we are a supplier of a basic component of their educational process.

But past events--are in fact just that and leadership is mostly concerned with the future.

We all know the old saw about death and taxes, but perhaps there are two other things which characterizes the future. First, it cannot be known. Second it will be different from what exists now.

At this point I should point out that there is a vast difference between predicting and projecting. Predictions are dreams of the future. Projections are the imperatives of present day work which will shape the future. The primary purpose of projecting is not to know absolutely what will happen tomorrow but rather to know what we should do today to have the highest probability of beneficial effect tomorrow.

Further, precisely because the future will be different and because it cannot be predicted it is possible to make the unexpected/the unpredicted come to pass. One further factor comes into play in shaping the future. For us-- for Georgia Tech in its educational role and for Control Data in its role of technology innovation that objective is very simply to increase individual and social well being.
I want to add that "technology is good" is not my theme. There certainly are examples to the contrary. But the contrary is equally untrue, and the person who projects the future understands technology perhaps the most vital factor of change.

And in this instance it is precisely the technology of computers that will allow us to move from the past in education. In the past the educational system attempted to collate the sum of man's knowledge, and transfer this information to the individuals who make up our human resource, and in turn attempt to apply this knowledge to the business of society.

There is no need for me to dwell on the knowledge explosion and the complexity in our world of today. Suffice to say that the world will change and will move from the traditional education system to an education and knowledge application system in which much knowledge no longer need to be collated and transferred individual by individual but rather in which—through the technology of computers—knowledge may be stored and applied directly to the problems at hand.

Alfred North Whitehead has written: "It is a profoundly erroneous repeated by all copybooks, and by eminent people where they are making speeches, that we should cultivate the habit of thinking of what we are doing. The precise opposite is the case. Civilization advances by extending the number of important operations which we can perform without thinking about them. Operations of thought are like cavalry charges in a battle—they are strictly limited in number, they require fresh horses, and must only be made at decisive moments."

Computer augmented knowledge is not difficult to project. The form and extent of its nature and its benefit will depend more than anything on leadership.
For me—a comfort for the future is the leadership of the past of the people at Georgia Tech to project the continuation and evaluation of that leadership into the future is very easy indeed.

Thank you.