Many students who work for burning love. Why?

It goes on and on — a long, long future.

It is not self-programming. You can think of it as self-programming in the following sense: what all programmers do today is tell the computer how to solve the problem, step by step. No matter what program language you use, if you tell it all the steps to solve the problem. Now, as programming language got more and more advanced, you began to not have to tell it certain things that were peculiar to the machine you were using, such as how to allocate the registers of the machine to the variables, and so on. But you still had to lead it through the steps of how to solve the problem.

In automatic programming, you tell it about the problem. You describe the situation and tell it the goals and so on, as you would another person; as a manager. The computer is a program, except in this case, the manager would tell the automatic programming system what to do. He would only be able to do that, in the system we are designing now, in the limited area in which this program has knowledge, as we call it. Do you believe that any problem that a person can solve can be solved by a computer, if you knew how people solve it?

I think that's true. We've gotten many things into computer programs that people don't know how to solve. In animal people don't know how they solve things. They just do it. In the

old days, people would ask, "How do you do integrals," and people would say,"I think for a long time and finally the answer popped into my head." That's basically what we have learned. There are lots of different processes going on.

The first computer integration program worked very much like the way people do integration. Much more powerful ones are running now that don't do it something like the way people do, and they're much better.

Let me put it this way: when people were thinking of the first airplane, they decided that the main problem would be the manufacture of feathers. Leonardo da Vinci made the statement a long time ago that we ought to try to emulate the bat and not the bird, because the feathers looked like a hard problem. The SST, if there was going to be one, doesn't have any feathers, and manages without them. So, this idea of finding out how we do it, and emulating it, sometimes helps. Very often, the computer does things more directly and better.