TECHNOLOGICAL LITERACY - PHASE II BEGINS

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Thomas Jefferson wrote that it was society's duty -- when confronted by citizens unable to understand an issue -- "to inform their discretion by education." Little did he imagine that within a scarce 200 years, the vast majority of citizens and their representatives of his, then, new republic, would not have the knowledge and understanding to vote intelligently on perhaps a majority of the issues, confronting the country. That is the reality. And our initial response must be to exert every conceivable effort to inform the voters' "discretion by education." The entire STS effort is devoted -- in part -- to precisely such education for contemporary citizenship.

This volume contains the written record of the third in a series of conferences built around the theme - last year I referred to it as also being a slogan - of Technological Literacy. Yet our very success in gathering a thousand persons to attend such a conference is a sign that we may now be past the first phase - getting attention paid to a new need in the education of citizens. It is clear that the community is now ready to move to Phase II in this enterprise.

In parallel with the effort to introduce the teaching of STS, it behooves us to ask the question whether, given the realities of the rate of change or improvement in our educational systems and the rate of change of technology and science, and in what sense this race can ever be won. Responding to this question instantly makes it clear that technological literacy cannot mean even the most meagre knowledge on the part of the public, about the ever expanding circumference of the S/T universe. What then can we realistically expect from the myriad efforts -- many described in this volume -- in the STS approach to this problem?

What can we change if not just the content of the courses? My own reflection on this topic goes back to Norman Cousins, founder and Editor, for a generation, of the Saturday Review of Literature with whom I had the good fortune to work on some committees in the 1970's. Cousins, one of the great figures in the literary world, had moved into the field of medicine because of a personal experience in alternative routes to healing. In short order he was able to write and sound like someone trained in the field. I asked him why this was possible. His answer gave me the clue; he said: "I never thought there was anything basic there (in the medical world) which I could not understand. I was never afraid of trying to pick up the gist of the argument and to ask about everything I didn't understand." The key to technological literacy may have little to do with content. The key lies instead with a change in attitude: From fear to familiarity. Like learning that St. Bernard's are just dogs. Not only must we eradicate science-phobia, we must instill a new sense of empowerment that essentially all citizens will feel that if, where, and when they wish they can learn enough about the technological issue to be a functioning citizen in our techno-democratic society.
I would hope that many of us concerned with the content of technological literacy, would realize that the change of psychological attitude to technology and science may be both the quickest and the most effective step in increasingly technological literacy.

In the volume which follows, we have collected many of the papers presented at the 3rd Annual TLC into eight sections. These sections move from the broadest challenges ahead, through the twin themes of the Conference "Technology and Development" and "Technology and Democracy," to the existential realities of STS education in concepts, programs and courses designed to address these themes. It is worth recording that in spite of the wide diversity of speakers who spoke on the issue of development, there was an extraordinary amount of agreement on the failure of the classical model for third world development. The issues of democracy in a technological society are less clearly drawn, and only now being opened up. One that is sure to surface soon, however, is the matter of the applicability of democratic procedures in selecting the goals for science and technology. There will be plenty to discuss for the next several TLC's.