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ABSTRACT

The control of technology over the physical environment is investigated in this seminar paper. Technological control creates a psychological paradox for man, making him feel helpless and incompetent. The dilemma of helplessness is emphasized because man's main environment is social and/or interpersonal rather than physical. Individual competence in the social environment is established through interpersonal relations with others. Technology offers success to man as a tool maker and controller, but technological control of the physical environment holds several dangers for the individual's relationship to others. The dangers concern personal freedom, dignity, and control. One danger is that man becomes deluded into forgetting chance, points in time, and kinds of events. Another danger is that technology contributes to man's expectancies of control or power and distorts his perspective of loving or caring from what he is and what he can do as a man. Thus, the risk of technological creativity lies in ignoring or interfering with the need for individual competence in relationships. Examples of current events are provided. (ND)

TECHNOLOGY AND THE NATURE OF MAN - PSYCHOLOGICAL CONSIDERATIONS

THE PROMISE OF TECHNOLOGY VS. THE EXPERIENCE OF INDIVIDUAL HELPLESSNESS

By
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on

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Preface

This paper was presented as one in a series of seminars on Man, Society, and Technology, conducted by the program of Technology Education at West Virginia University during the 1973 summer session. Over fifty individuals, including faculty and students from the university as well as individuals associated with the university through other institutions and endeavors, participated in the seminars.

The seminars were dedicated to a better understanding of the modes of inquiry, basic assumptions, principles, and concepts used by members of various disciplines and professions as they pursue answers to questions concerning the nature of man and technology in relation to the problems and issues associated with ecology, work, theology, law, medicine, politics, education, and economics; and questions concerning values, technological assessment and forecasting.

One overwhelming conclusion was the realization that the complex issues and problems associated with technology are related directly to decisions which are functions of value systems. Values require examination and reassessment. The educated citizen of tomorrow can not be trained as a narrow specialist nor can the humanist remain technologically aloof or illiterate. Education for the future may mean a rebirth of the renaissance man and perhaps a reevaluation of the technologies and humanities and the creation of a new interdisciplinary effort called the "techmanities."

The question of individual helplessness discussed in Dr. Carruth's paper entitled "The Promise of Technology vs. the Experience of Individual Helplessness" reminds each and every student of technology that the major environment of humankind is social and/or interpersonal. The questions raised concern freedom, dignity and control. Professor Carruth sets the stage for dialogue on the question of "what do people need to know about technology if they are to control the system for their benefit and lessen the feeling of individual helplessness?"

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September, 1976

THE PROMISE OF TECHNOLOGY VS.
THE EXPERIENCE OF INDIVIDUAL HELPLESSNESS

James F. Carruth, Ph.D.

Everyone is increasingly aware of what we may be doing to our total physical habitat and the multiple ways for biological, chemical, and nuclear self-destruction. At the moment, crime, poverty, and starvation and energy are unsolved and serious problems. Technology appears not to be increasing freedom but increasing a sense of individual helplessness and inequities between groups.

However, over 40 years ago, at the 1933-34 Chicago World's Fair, I was a boy enthralled with unlimited possibilities of applied science. The theme of the Fair was "The Twentieth Century; the Century of Progress". The Hall of Science forecast the age of chemicals. The Hall of Agriculture portrayed the possibilities of licking the world's food problems with huge farm machinery and chemical farming. In the Hall of Transportation the aerodynamic Chrysler, the D-C 3 and the stainless steel streamliner were going to revolutionize our mobility. All I remember of Biology was seeing the stages of embryonic and foetal development of the human infant in jars. I suppose birth control was already a gleam in the eye of the biologist.

Looking back, it's interesting to me to note that at the time of the Fair I was a pupil in the Winnetka Public Schools. I was partic-

pating in a system of individually programmed instruction with enrichment incentives for achieving beyond grade level. The general milieu was one of positive reinforcement for competence and achievement. It was an anxious time for my parents during the Depression Years but the schools and the Fair illuminated optimism and idealism for me. We could be in two places at the same time via electronics and overcome distance with speed. There was nothing we couldn't control eventually. The new frontiers were technological.

Forty years later, I still have a basic faith in the positive potential of applied science, tools, and human skills - Still it has been necessary to develop a personal philosophy that will deal with the major paradox of technological successes accompanied by social and personal failures.

Probably the major psychological paradox for each person in our present world is the appearance of more and more control over our environment, paired with a rapidly increasing sense of individual helplessness. As a psychologist I would like to look at the dilemma of individual helplessness.

The struggle of humans, whether in groups or individually, is to develop competence out of helplessness. For the individual, active living is observed in the progression from infancy to adulthood. The process is roughly from helpless dependency to relative self-sufficiency. Paraphrasing Erik Erikson (1953), adult competencies might include sexuality, productivity, generativity, widening circles of

responsibility in self-other relationships and self-acceptance. The basic assumption is that we learn, behave, and grow in compexity as persons in relationship to others. Consequently we have both individual and social objectives. In order to work and to create and to assert ourselves on our environment we need to maintain a place in the group.

It is the thesis of this paper that technological control of our physical environment in the context of masses of people holds a number of serious dangers for the experience of ourselves as individuals, which may only occur in relationship to others. In order to experience individual self-esteem, we must experience individual power and affection in relationships to significant others and in a community of others.

The apparent ability to control space, time, hazards of food and shelter, and mass communication seems to promise two illusions; the power to control people and to control the future.

The illusion of controlling the future is very attractive. The biologist and psychologist in the United States are working in ways which might control genetics and parenting in the first case and behavior in the second. Psychology as a profession is focusing most on the value that behavior is a response to the situation in which it occurs and can be controlled by controlling the situation. This is a peculiarly American hope. Europeans are not so sure (Rychlak, 1973). European thinking, including that of European psychologists, is much

more likely to accept limits to our control and live with some awareness of individual helplessness, in the face of God or Chance and Human Error.

Stephen Vincenzey in a little book titled, Rules of Chaos; or Why Tomorrow Doesn't Work (1970) illustrates this point of view by identifying the expectation of controlling events in the future, as the only true insanity. His grossest example was the Vietnam War, where Americans naively hoped to control the destiny of Indo China - with our technology and our strength.

One of the dangers, then, of our success as tool-makers is that we become deluded into forgetting chance, points in time, and kinds of events. Psychologists are as prone to forgetting as is everyone else, even when some of their major tools are statistical methods which are based on the meaning of chance and probabilistic predictions. Perhaps we can have some kind of control over some kinds of events, the closer they are to immediacy. We might be able to make a small cloud rain for a few moments in time, but we can't control tomorrow's drought.

Technology is also a two edged coin when it comes to mixing personal motives. In addition to being a tool-maker, man is a social animal. Our major environment is social or inter-personal. Timothy Leary (after Freud) stressed two major dimensions of inter-personal experience, Love and Power (Leary, 1957). Person to person relationships are seen as an interactive process along dimensions of dominance

- submission and Love-Hate. Either dimension can be exaggerated at the expense of the other. From this perspective, technology most seductively contributes to our expectancies of control or power and even distorts our perspective of loving or caring from what we are to what we can do. It's easy to forget that trust and affection and loyalty validate relationships and not weaponry or money or behavioral control technologies. What we can do and what we can feel about each other are both components of relationship. One is not the other and does not simply control the other. The more we try to control one another the more disappointed we may be in our individual sense of competence. Competence is somehow not control of others or control of events; it is somewhere in our validity in relationships with others.

The risk of our exciting technological creativity lies in ignoring or interfering with the need for individual competence in relationships. We have created by-products of progress which dislocate individual and group relationships. We may make it very difficult to have the opportunity to experience personal respect and esteem. The expectation of individual value first transmitted to us individually through parent-child relationships can easily be stunted and distorted. We may make it very difficult to experience relationships and to grow and learn and die with individual joy and validity. We may even try to erase individual differences and individual experience.

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