The purpose of this paper is to explore the origins and nature of bureautechnocracy and to raise some questions for social-philosophic inquiry into contemporary schooling. Four major socio-cultural trends are examined vis-a-vis the increasing enfeeblement of bureaucracy and the emergence of a new organizational pattern, bureautechnocracy: an incipient fast on its way to becoming the dominant organizational model of our time.

CHARLES A. TESCONI, Jr.*

Bureautechnocracy: An Emerging Organizational Pattern*

I

Organizational theorists tell us that every age breeds organizational patterns peculiar to its social complexities. The bureaucratic model, for example, with its principal origins in the early stages of the so-called Industrial Revolution, evolved out of societal demands for fair managerial practices, and industrial-economic need for order, standardization, predictability and efficiency. It was a suitable answer to the values and exigencies of the Victorian era.[1]

Today, bureaucracy is out of joint with the demands of advanced industrialized society. Increased interdependency among societal institutions and processes, and the vigor with which scientific technology has crept into every corner of human activity, have created a social environment so frenzied and unpredictable that the bureaucratic cast of human organization is taking on the pallor of the dying. And just as bureaucracy evolved out of the needs of a radically new age, so today new organizational shapes are emerging in response to a host of incomparably different social complexities. I call one such pattern *bureautechnocracy*: an incipient form on its way to becoming the dominant organizational model of our time.

The purpose of this paper is to explore the origins and nature of bureautechnocracy and to raise some questions for social-philosophic inquiry into contemporary schooling. My efforts here are, at best, ex-

*Assistant Professor of Education, University of Illinois, Chicago Circle.

[1]Warren G. Bennis and Philip E. Slater, *The Temporary Society* (Evanston: Harper and Row, 1968), p. 55.

ploratory; they represent an attempt to brush clear the surface of a
macro-perspective on one aspect of the contemporary social order. I do
not claim to be presenting a finished position, much less a conceptual
edifice.

<div align="center">II</div>

The axial terms which constitute the concept *bureautechnocracy* refer
to a particular genre of social organization (bureaucracy) and what is
customarily referred to as the application of scientific or organized
knowledge to practical tasks (technology). At base, therefore, bureau-
technocracy is that which issues from the linkage of bureaucratic *form*
and technological *process*.

Buraucracies differ, so do approaches to the art of applying
organized knowledge to practical tasks. Differences between bureaucra-
cies, however, are largely a function of goals. All bureaucracies share,*
at the very least, these basic features:[2]

1. A hierarchized series of offices, each containing an area if im-
    puted competence, responsibility and status, systematically or-
    ganized and functionally related for the purpose of achieving
    maximum efficiency in attaining predetermined goals.

2. An impersonal, routinized structure, defined by systematic rules
    wherein legitimized authority rests in the roles or offices thereof
    and not in the person of the role incumbent.

3. Systematic, prescribed relations between various offices involving
    a considerable degree of formality and clearly defined social
    distance.

4. Systematic and prescribed rules aimed at minimizing friction
    and official contact between office incumbents to patterns which
    produce a stable set of mutual expectations.

In short, all bureaucracies are assemblages of interacting, mutually sup-
portive elements which are functionally arranged, and which rely ex-
clusively on the power to influence through rules so as to attain, in an
efficient manner, previously agreed upon goals.

At first glance, the organizational imperatives of advanced industrialized
society, particularly those which come from large scale technology,
seemingly require the mere expansion and embellishment of the prevail-
ing bureaucratic model. And our early glimpses at technological de-
mands moved us to act in a manner which indeed resulted in bureaucracy
heaped upon bureaucracy. We are painfully aware, however, that this

---

*Max Weber, the German sociologist who first conceptualized the model of
bureaucracy, offered this pithy description: "Bureaucracy is like a modern judge
who is a vending machine into which the pleadings are inserted along with the
fee and which then disgorges the judgment with its reasons mechanically derived
from the code." (Quoted in Warren G. Bennis and Philip E. Slater, *The Tempor-
ary Society* (Harper and Row, 1968), p. 120.

[2]Robert K. Merton, "Bureaucratic Structure and Personality," *Social Forces*, 18
(1940), pp. 561-568.

Parkinsonian-like reaction has multiplied the problems of intra-organizational function. The increased potency man has gained through large scale technology in his efforts to master the physical environment "is in part cancelled out by . . . [his] inability to master the operational requirements of the self-complicating organizational structures that [he has assumed] such technology entails."[3]

In general, then, it is the crescendoing infirmity of Parkinsonized bureaucracy which spells the doom of the bureaucratic model. It shows itself to be a cripple in its attempt to accommodate the imperatives of modern technology. Numerous other developments could be cited as contributing to the enfeeblement of bureaucracy. I will address myself, briefly, to these:*

1. Rapid and unanticipated change.
2. Complex social growth and increased demand for human support services.
3. Demands for change in managerial practices.
4. Complexity of modern technology.

1. *Rapid change.* It is the rare individual who is ignorant of the fact that every few years modern man encounters a new social environment with its own cultural flavor. Recurrent encounter with new social environments somehow makes us very susceptible to the influence of change. The result is a circular, self-perpetuating process: "The more susceptible, the faster the change; the faster the change, the more susceptible. In this way the rate of change constantly accelerates in a spiral fashion."[4] One function of this phenomenon is to make individual adjustability to change *the* criterion of psychological durability. In a sense this is also the case with organizational patterns: survival is dependent upon the capacity to accommodate change and its concomitant demands.

The bureaucratic mode of organization draws strength from its capacity to deal efficiently with that which is routine and/or predictable. It is appropriate when objectives are known and the means for attainment of same is explicit. This is not the case when organization is needed for objectives which are not clear and when means for achieving objectives are not known. Bureaucracy's neatly defined hierarchized and functionally integrated offices, its rigid rules, prescribed relations between offices, and its overall inflexibility make it ill-suited to the unexpected, often whimsical mandates of rapid social change.

Bureaucracy is, essentially, what organizational theorists call a "closed system." Such an enterprise operates as if it were so independent as to

---

*In *The Temporary Society* (Harper and Row, 1968) Warren Bennis and Philip Slater present an excellent case in support of the thesis that bureaucracy is dying. My discussion of developments which are crippling bureaucracy, and this paper as a whole, borrows heavily from their perceptive work.
[3]Bennis and Slater, *op. cit.*, p. 55.
[4]*Ibid.*, p. 23.

permit most of its problems to be handled with reference to its internal structure and without regard for external conditions. Consider the snail's pace with which Universities (after governmental agencies, Universities must be the most bureaucratic of bureaucracies!) respond to what even their chief spokesmen regard as *legitimate* demands from their patrons. Or, even more telling, consider the U.S. Department of Agriculture's Food Stamp Program. Designed to alleviate the problem of hunger and nutrition among the impoverished and near impoverished, the Program allows those who qualify to purchase with X number of dollars Food Stamps with the buying power of 2X or 3X. In many parts of the country, however, Stamps can only be purchased in certain multiple dollar amounts. For example, Stamps can only be purchased in multiples of $50 or even $100. Those who run the Program have been told numerous times that persons who qualify for the Stamps find it difficult to put together $10 not to mention $50 or $100. Nevertheless, the Program goes on unchanged; to modify the multiple dollar purchasing requirement would necessitate too much organizational change. Internal requirements outweigh external urgencies.

Bureaucracy's demise will surely and shortly arrive, for as a "closed system" it has been too closely paralleling the formal physical models of closed systems. Such models postulate, as in the second law of thermodynamics, that the inherent tendency of closed systems is to grow toward maximum homogeneity of the parts and that a steady or "quiet" state can only be obtained *by the suspension of all activity!*

The simple fact that bureaucracy is synonymous with difficulty in achieving changes in operational methods, in an age when the social environment demands organizational patterns in which there is a sparsity of such difficulties, underscores its effeteness for modern times. Consider Likert's conclusions about the time needed to realize change in bureaucratic organizations' operational procedures:

> Field experiments conducted by the Institute for Social Research in several companies indicate that at least three or four years are likely to be necessary to develop and test the application of the newer theory (of participative management) in a particular company. In companies with more than two or three hundred employees, an additional five years or more may be required to shift the organization to a full-scale application of the newer theory. In large corporations, even more time will be necessary.
>
> Neither the testing of the theory nor the shifting of an organization to a full-scale application of the theory can be hurried. Haste is self-defeating because of the anxieties and stresses it creates. There is no substitute for ample time to enable the members of an organization to reach the level of skillful and easy, habitual use of the new leadership and membership principles and methods required for an application of the newer theory.[5]

In our own University, we discovered that in order to make a minor change in the grade-point average required for admission to student

[5]Rensis Likert, *New Patterns of Management* (New York: McGraw-Hill Book Company, Inc., 1961), pp. 247-248. Also quoted in Donald Michael, *The Unprepared Society*. (New York: Basic Books, 1968), p. 93.

teaching we had to obtain the approval of (1) the Educational Policy Committee of the College of Education, (2) the Educational Policy Committee of the Student Caucus (the name of the student group involved in the governance of the College), (3) the College of Education Faculty, (4) the Student Caucus, (5) the local campus-wide Council on Teacher Education, (6) the Educational Policy Committee of the Faculty Senate, (7) the Faculty Senate, (8) the University-wide Council on Teacher Education, and finally, (9) the Board of Trustees. The sheer magnitude of such a process discourages change and rewards inertia.

Difficulty in achieving changes in operational procedures is, of course, a function of bureaucracy's reliance upon prescribed rules (which seldom address themselves to new needs and cannot account for unanticipated problems), its clumsy hierarchy, etc. But there are human reasons also. The bee-hive like environment of bureaucracy (e.g., emphases on role definition, rigid rules, social distance, etc.) breeds among bureaucrats what is often referred to as neurologically based resistance to relearning, once one has learned "successful" behavior. The introduction of new procedures (or even the mere threat of same) into an established "closed system" automatically creates a great deal of tension in members of the organization, simply because the changes (by implication if nothing else) raise questions about current proceedings. Moreover, changes affect social system norms which in any organizational form correspond to habits in individuals. Norms, as customary and expected ways of behaving, are shared by many members of an organization and they do not easily change. This is an acute problem in bureaucracy, for its structural maintenance is overly dependent upon an abundance of rigid norms, all clearly defined and embedded in the stable expectations of bureaucrats. Then there is the ever-present problem of dealing with those who have achieved some status within the organization and who see possibilities for more. These are the types who perceive the rules of the organization as *summum bonum,* not to be jeopardized by change, because they spell out the steps in the status achieving game. Andrew Hacker laments in this regard that: "There is not much point, then, in musing about how nice it would be if our . . . [bureaucrats] underwent more instruction in moral philosophy or modern sociology. The simple fact is that they are busy men, on the way up during most of their formative years, and the exigencies of the climb compel them to think of themselves rather than for themselves."[6]

If organizational survival is a function of the capacity to accommodate the imperatives of rapid change, then bureaucracy is surely among the dying. Organizations patterned after the bureaucratic model are designed to do a narrowly prescribed assortment of things, and to do them reliably; that is, to deal with the same things, over and over again, in

[6]Andrew Hacker, "The Making of a (Corporation) President," *The New York Times Magazine,* April 2, 1967. pp. 22-27. Also quoted in Donald Michael, *The Unprepared Society, op. cit.,* pp. 94-95.   ,

the same way.   To insure reliability, the bureaucratic organization must militate against change and innovation.   Efforts to innovate must be categorized as error, insubordination, or both.   This won't do in modern times.   Research conducted at M.I.T. reveals quite clearly that bureaucracy is an albatross around the neck of advanced industrialized society: "For adaptability to changing conditions, for rapid acceptance of a new idea, for flexibility in dealing with novel problems, generally high morale and loyalty . . . the more egalitarian or decentralized type (of organization) seems to work better."[7]

Rapid social change is a function of many separate events coming together at a specific moment in time.   It is seldom linear.   In analyzing change, therefore, it is always difficult to clearly specify antecedent conditions and cause and effect relationships.   Chicken and egg questions abound!   Complex social growth involves a matrix of such questions.   It is at once both a function and condition of rapid social change.   In any case, it is helping to make bureaucracy "old hat."

2.   *Complex social growth.*   By 1980, about 235 million people will be living in the U.S., 80 per cent of which will be living in highly urbanized settings.   Population growth will change our urban areas from their "traditional pattern of geographically separated cities, each with its distinct political and physical characteristics and social identification, into megalopoleses — regional urban areas."[8]   These developments will make for social complexity in countless, untold ways, but in terms of organizational patterns the greatest impact will follow from increased demand for human support services, not only for the poor but for everyone.

We have already been witnesses to the fact that the social complexities which follow population growth result in greater demands for support services.   At the turn of the century, 25 per cent of the population in this country resided in what can be called urban areas.   Today, 25 per cent of our population resides in small town and rural America.   This reversal in population patterns has brought such a dramatic growth in support services that sometime during the 1950's, the U.S. became the first country to employ more people in service occupations than in the production of marketable goods.   For example:

> In the field of education, the *increase* in employment between 1950 and 1960 was greater than the total number employed in the steel, copper, and aluminum industries.   In the field of health, the *increase* in employment between 1950 and 1960 was greater than the total employment in mining in 1960.[9]

Demands for human support services will not slow down.   On the contrary, experience has taught us that as people become more educated,

[7]Quoted in Bennis and Slater, *op. cit.*, p. 5.
[8]Donald N. Michael, *The Unprepared Society*: *Planning For a Precarious Future op. cit.*, p. 15.
[9]Bennis and Slater, *op. cit.*, p. 58.

more politically aware, and as they begin to "enjoy" support services, their demands for such services increase.*

The prevailing bureaucratic mode of organization must and will change in the face of complex social growth. The ecology carried by a megalopolized, highly educated, politically sensitized, support service aware social environment automatically impacts upon organizational patterns operating in that environment.

> [It will be] a turbulent environment, not a placid and predictable one, and there . . . [will be] a deepening interdependence among the economic and other facets of society. This means the economic organizations [will be] increasingly enmeshed in legislation and public policy . . . It may also mean, and this is radical, that maximizing cooperation rather than competition between organizations — particularly if their fates are correlated (which is most certainly to be common) — may become a strong possibility.[10]

Bureaucracy's need for a stable, predictable environment suggests that it will crumble. The goals of an organization which operates in a social environment featuring intense demands for human support services will not be the simple, clear-cut goals upon which bureaucracy relies. Goal ambiguity, multipurpose capabilities, and intra-organizational mobility will be the characteristics of future organizational patterns.[11] Moreover, the expansion of human support services requires persons of a very diverse, highly specialized competence. Such requirements alone tend to "break down the old . . . (bureaucratic] trend toward more and more people doing either simple or undifferentiated chores."[12]

The type of socio-political sensitivity which moves people to demand more human support services — brought about, in part, by increased knowledge of man's real needs and motivations — has already begun to show itself in elaborate efforts to change prevailing managerial practices.

3. *Changes in managerial practices.* The impersonal nature of bureaucracy, intensified by its expansionist response to large scale technology and recent findings in social-psychological research regarding the influence of organizational patterns upon interpersonal relationships, has given rise to a dramatic effort to humanize organizations through change in managerial practices. The magnitude of this drive and its relative influence are hard to get at, but nevertheless it exists. Bennis and Slater point out that:

> The real push for these changes stems from the need, not only to humanize the organization, but to use it as a crucible of personal growth and the development of self-realization . . . This deliberate self-analysis has spread to large and more complex social systems — organizations, where there has been a dramatic upsurge of this spirit of inquiry over the past two decades.

---

*A mere 30 years ago found only 1 out of 8 Americans attending high school; today 4 out of 5 attend. By 1980, nearly two thirds of our population living in metropolitan areas will have attended college.

[10]*Ibid,* p. 67.

[11]*Ibid,* p. 69.

[12]*Ibid.,* p. 58.

At new depths and over a wider range of affairs, organizations are opening their operations to self-inquiry and self-analysis.[13]

The moves to humanize prevailing organizational patterns are not motivated by mere humanistic chauvinism. They find support in social science findings such as:

1. A new concept of man based on increased knowledge of his complex personalistic needs; a conception which amounts for the requisite of *involvement* in work, and meaning and direction in major life activities. This is a conception of man which replaces bureaucracy's over-simplified, functional, instrumental conception.

2. A concept of interpersonal relationships, which takes into account the need for cooperation and reason; a conception which negates bureaucracy's power model based on coercion and the implied threat of human functional obsolescence.

3. A new concept of organizational values, based upon humanistic-participatory ideals which denies the depersonalized, mechanistic value orientation inherent in the bureaucratic model.[14]

These are just a few of the "scientific" findings which point to the death of bureaucracy. They suggest that we can no longer be content to "produce" bureaucratic-type personnel, that is, what we usually think of as the "organization man." These data suggest, furthermore, that a major organizational problem — already present and sure to intensify — is how to mesh individual needs and organizational demands. They make it clear that future organizational patterns *must* account for personal attachment, meaning, and involvement. And they *must* reflect a genuine concern for the individual's well being as a moral, integrated personality.[15]   Bureaucracy fails on all three accounts!

In order for people to cope with the personal challenge with which . . . [rapid change and complex social growth] will confront them, we will need many more people skilled in being human: in warmth and trust, openness and compassion, in being nonmanipulative and nonexploitative. In order to lead, to plan, to govern tomorrow's world, in order that the individual and the ineffable are cherished in a megalopolized, technologicized world, we will need administrators, policymakers, and executives with these characteristics or at least with the capacity to recognize the desperate importance of these characteristics.[16]

Rapid and unanticipated social change, complex social growth, and demands for change in managerial practices are only three potent forces which are gnawing away at bureaucracy's vitals. The galvanic effects of these forces, however, pale in the light of the complexity and impact of modern technology; they pale for several reasons, but the most important may be that they owe their very existence to modern technology itself.

4. *Complexity and impact of modern technology.* When we speak of technology the usual referent is hardware: computers, machines, talk-

---

[13]*Ibid.*, pp. 58-59.
[14]*Ibid.*
[15]*Ibid.*, p. 64.
[16]Michael, *op. cit.*, p. 34.

ing typewriters, etc. It is not wrong to speak in this way, but to do so is to think of technology in the adolescent, who-knows-what-will-come-of-it attitude of the past. It will not do for today. It is technology as *process,* as well as hardware, which is the key element vis-a-vis the dissolution of bureaucracy.

Technology, the other pivotal rootword of bureautechnocracy, when conceived as process is commonly defined as the systematic application of scientific or organized knowledge to practical tasks. There are in this sense, of course, numerous technologies, each a function of the type of knowledge applied and, more importantly, the nature of that to which the knowledge is applied.* The use of knowledge in this way results in new objects, processes, etc. Although such application gives us immediate satisfaction and seemingly greater control and efficiency, the very scope and scale of this sort of knowledge application gives rise to unanticipated secondary and tertiary consequences of perhaps greater importance and complexity than that which called for the initial inquiry and application.[17] A familiar example illustrates this point: the jet engine greatly extended our control over distance, but it profoundly contributed to lack of control over air pollution, our landscape, noise, and the economy of land transportation systems.

In any case, our concern here is with that to which all technologies owe their essential quality: *a complex of standardized means, rationally arrived at and systematically applied for attaining, swiftly, ends-in-view* This is not the usual definition of technology,* but it does incorporate that which appears in the more common interpretations, that is, the phrase *systematic application of knowledge.* It also renders a meaning which suggests that every individual practices a particular technology. And this is appropriate. The method each individual employs to attain a result, a solution to some felt need, *is* his particular technology, his particular *means.* Technology itself is nothing more than means. Large scale technology is an *ensemble* of means. The reality that everyone has individual technologies does not lessen the uniqueness of large scale technology as a social or cultural phenomenon. Advanced industrialized society is first and foremost a society of technology, of means. What differentiates technology as a socio-cultural phenomenon, from that of the individual's technology, or even the non-literate people's sort of primitive technology — stalking the hunted, killing it, storing it, etc., — is that advanced industrialized society's technology has taken what was once (primitive technology) and is (the individual's technology) tentative, unconscious, non-reflective, and spontaneous behavior, and moved it into the realm of the conscious, and rationalized. Henri Guitton has noted in this regard that: "Social growth was formerly reflexive or instinctive, that is to say, unconscious. But

---

*It is very close to that which Jacques Ellul (*The Technological Society*) offers for his conception of *technique.*
[17]*Ibid.,* p. 27.

new circumstances . . . [large scale technology] now compel us to recognize a kind of social development that is rational, intelligent, and conscious. We may ask ourselves whether this is the beginning not only of the era of a spatially finite world but also the era of a conscious world."[18] All pervasive technology is the agent for this new world.

This definition, therefore, makes explicit that technology as process is given over to the elimination of irrationality, feeling, inspirations, or even ingenuity. Technology transforms non-reflective behavior into that which is methodical and formalized. It standardizes our world and ritualizes our responses to it. Technology's logical end is to protect man from the world's ragged edges.

In advanced industrialized society, technology is increasingly difficult to escape. Merton put it this way:

> Ours is a progressively technical civilization . . . the ever-expanding and irreversible rule of . . . [technology] is extended to all domains of life. It is a civilization committed to the quest for continually improved means to carelessly examined ends. What was once prized in its own right now becomes worthwhile only if it helps achieve something else. And, conversely, . . . [technology] turns means into ends. "Know-how" takes on an ultimate value[19]

Technology's products (computers, etc.) make us much more susceptible to technology as process. The products make it possible for the process to extend itself with such rapidity that control over it and anticipation of its consequences are virtually impossible.

> As long as . . . [technology] was represented exclusively by the machine, it was possible to speak of "man and the machine." The machine remained an external object, and man (though significantly influenced by it in his professional, private, and psychic life) remained none the less independent. He was in a position to assert himself apart from the machine; he was able to adopt a position with respect to it.

> But when . . . [technology] enters into every area of life, including the human, it ceases to be external to man and becomes his very substance. It is no longer face to face with man but is integrated with him, and it progressively absorbs him. In this respect, . . . [technology] is radically different from the machine. This transformation, so obvious in modern society, is the result of the fact that . . . [technology] has become autonomous.[20]

The bureaucratic organizational model cannot withstand the imperatives of technology, nor can it prevail against the tides of change and complexity wrought by unanticipated consequences of technological operations. For example, the introduction of just one technological product, the computer, into the bureaucratic model gives rise to a pattern of

---

*Thus, Dental Technology is the systematic or methodical application of organized knowledge (derived from many diverse fields of knowledge ranging from tool and dye engineering to dento-lingual science) to the practical tasks associated with "doing" dentistry.

[18]Henri Buitton, quoted in Jacques Ellul, *The Technological Society*, (translated by John Wilkinson) (New York: Random House Vintage Books, 1964), p. 6.

[19]Robert K. Merton in "Foreward" to Jacques Ellul, *The Technological Society*, *op. cit.*, p. vi.

[20]Ellul, *op. cit.*, p. 6.

organization which is dramatically different from the original. Instead of merely replacing a human with a computer, management moves toward reorganizing its whole operation, toward rationalizing and technologizing the system. Technology is its own imperative; it demands more technology.

Technological developments, then, produce new knowledge and new capabilities related to managerial functions and, accordingly, give rise to new patterns of organization. Three recent developments, two of which have been referred to in this paper, stand out. One is increased knowledge relative to the use of electronic computers in dealing with operational problems of organizations. A second is the development and application of operations research, a series of practical applications of mathematical and statistical techniques. The third, flowing out of organizational theory, might be looked upon as the new discipline of "management science." All three have contributed to increased knowledge about managerial practices and organizational patterns. Computer operations and operations research application have already brought about large scale changes in the structures of organizations. And, as already noted in this paper, better understanding of organizational theory and the impact of organizational structure upon human relationships is already affecting organizational patterns.

All of this changes the structure and mandate of managerial practices. Technological imperatives are forcing us to, and will increasingly continue to, design coherent systems which fuse cybernated equipment and processes and human organizational patterns. This trend, just beginning, should have substantially greater impact upon bureaucracy in the years ahead. The result may very well be a new organizational model, what I call bureautechnocracy.

III

Bureautechnocracy is *a pattern of social organization and management wherein some features of the hierarchized, pyramidal, authoritative model of human organization (bureaucracy) are linked with standardized, rationalized means (technology) with the overall aim of achieving control, flexibility, and efficiency in dealing swiftly with novel and unanticipated tasks.* This marriage of structure and process, an evolvement of the increasing impotency of bureaucracy and the virility of modern technology, will have some unique features.

First of all, bureautechnocracy will possess a fairly permanent foundational or skeletal structure. This structure will be bureaucratic-like in the sense that it will be comprised of a hierarchy of executive and service offices; the major function of the former being that of articulating the broad goals of the organization and the latter that of providing services for individuals and groups within the organization. The ordering of this hierarchy, however, will be temporary. It will be based upon constantly

changing goal and task priorities. The nature and priority of the different tasks — to which the organization attaches itself — will, therefore, determine the relative status, power, etc., of individual offices within the executive hierarchy. So too with the service offices. Task X, which in month or year Y stands high on the priority list, will call for certain types of intra-organizational services and executive decision making. Accordingly, if Task X calls for heavy service from computer programmers and decisions from those in the executive hierarchy who are knowledgeable about and deal with, let us say, the leasing of computers, then the respective service and executive types will stand high in the "skeletal structure" during month or year Y. That is, more money, time, staff, etc., will be given over to them. Moreover, they will have the most to say in decisions about the overall organization's efforts, direction, etc., during that period of time.

The anatomical dependence of the foundational structure upon the task priorities suggests the key element in bureautechnocracy: temporary task teams. Task *orientedness* will be the glue which holds bureautechnocracy together. It will be made up of numerous task teams, each hooked into the structure by attachment to the goals and values reflected therein, by the types of services offered (which may differ in degree and kind from those provided by the bureautechnocratic structure of other institutions*), by attachment to individuals in the executive hierarchy, or the possibility of holding office therein.

> [The task forces will be] composed of groups of relative strangers with diverse professional backgrounds and skills organized around problems to be solved. The groups will be arranged on an organic rather than mechanical model, meaning that they will evolve in response to a problem rather than to preset, programmed expectations. People will be evaluated not vertically according to rank and status, but flexibly according to competence. Organizational charts will consist of project groups rather than stratified functional groups.[21]

Once a problem or task is thought to be solved or appropriately handled, the task team will be dissolved and its members re-assigned to new teams in the light of their skills, and the new problems at hand. Here again, the base structure, through the executive hierarchy, justifies its reason for being. The executive becomes a coordinator of and between task teams, plays a role in assigning and re-assigning task force members, and will often be expected to mediate between different teams and individuals. The executive, then, is the bridge between task groups. He will be the man who can speak the jargon of research and technology, with the skills to translate and relay information between groups.[22]

Bureautechnocracy, then, is seen as the consequence of (1) the increasing enfeeblement of bureaucracy and (2) the fact that technology — as process — is the agent for coming, new social environments. Those

---

*Like bureaucracies, bureautechnocracies will differ primarily in terms of goals.
[21]Bennis and Slater, *op. cit.*, p. 98.
[22]*Ibid.*, p. 74.

trends in modern society which spell the death of bureaucracy and the increasing pervasiveness of technological process suggest, quite clearly, that organizational tasks will be much more technical, unprogrammed, and fraught with non-predictable consequences. The bureaucratic model of organization cannnot handle these complexities; but they will be handled by task oriented, technologically skilled, temporary teams of diverse specialists, linked by a common task, and linked to other problem solving groups by the general goals of a bureaucratic-like structure, and by the coordinating and task evaluating executive specialists. This new type of organization will come to replace bureaucracy. It is already operating in the aerospace industries and is in evidence in some military agencies such as NORAD (North American Defense Command). We also see it nationally, at the Federal government level, as reflected in the "commission." In recent years, a whole host of national issues have been handed over to "commissions" (the compositions of which are not always a function of concern for skill competencies) on the stated assumption that teams of diverse, highly specialized types are most able to solve these problems or, at least, intensify national awareness of them. President Johnson appointed dozens of such commissions; so too has Richard Nixon, although he prefers to call them "task forces." Today, at least 3,000 are operating at the federal level alone; countless more are at work for state and local governments.[23] Even *Time* recognized the significance of the "commission" as reflected in the following:

> The proliferation of these study groups can be interpreted as proof that traditional political institutions are no longer capable of handling unassisted the problems of U.S. society. On the other hand, the commission may be evidence that American democracy is still inventive enough to create new institutions . . . when the need arises.[24]

I do not intend to dwell upon the adequacy of bureautechnocracy relative to the social science findings discussed earlier. I am not sure, however, that bureautechnocracy is the appropriate end of efforts to humanize organizational patterns. I suspect that it is not. However, even were bureautechnocracy to meet the human or personalistic needs of persons within the organization, it appears to me that it has consequences for society at large, not unlike those which follow from large scale technology (e.g. standardization, ritualization, rationalization, etc.), which may be in contradiction to more "humanistic" possibilities. In any case, this is an area in which social-philosophical inquiry could prove helpful.

IV

Implications for social-philosophical inquiry into schooling . . . Clearly one area sorely in need of research is related to the interlinked pattern of weaknesses in our educational system's organizational forms and other institutions which it serves and by which it is molded. At this point, however, I will only raise questions which are thought worthy of atten-

---

23"Time Essay," *Time,* January 19, 1970, p. 22.
24*Ibid.*

tion in the light of what has been discussed in this paper. Accordingly, these questions come to mind:

1. How do we educate people to understand technology as process?

2. Can technology as process be controlled?

3. How do we educate people to think of life in terms of probabilities rather than certainties?

4. How do we educate people for tolerance of ambiguity?

5. How do we educate people to live meaningfully in a social environment over which individuals have little control?

6. How do we educate people to rely upon internal-personalistic sanctions rather than the external norms and sanctions of a rigidly organized social environment?

7. How do we educate people to handle what will be a more atomized social existence?

These are just a handful of questions which follow from the discussion in this paper. They are not necessarily *new* questions; they have been raised before. But they have not been aggressively dealt with. Moreover, they have not been raised in a context such as that provided in this paper; a context, I believe, which makes these questions all the more pressing.