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Education and the Future

Our aim is to discuss education and the future, not separately but together. Here we are confronted with two concepts overwhelming in their coverage, meanings, implications. How are we to relate these two expansive domains of human thought and action? There are several choices.

(1) First, we could focus on education in the future, the future of education, what education will be like. This choice is fundamentally noetic and positivistic. It is certainly the most popular.

(2) Second, we could focus on education about the future. We might call this the communications or, alternatively, socialization approach, depending upon the emphasis.

(3) Third, we could focus on education towards or for the future. This is essentially the heuristic choice.

In the first approach, we seek knowledge through intellectual activity.

In the second approach, we seek the dissemination of that knowledge.

In the third approach, we seek many things: discovery and invention, intentional action, new policies, new institutional formations.

Each of these choices is fraught with practical and theoretical difficulties. Simplistic or unified resolutions of these difficulties are not readily available, for they lie at the heart of fundamental dilemmas of Western culture; deep confusion about the relationship between knowledge and action, theory and practice, object and subject. These

dilemmas confront every person and find expression in all aspects of our social life. The dilemmas are immediately transparent when we focus on *how* to discuss education and the future. While the following discussion can only suggest a few of the main points at issue, perhaps it will set the grounds for a new approach to education and the future.

education in the future / the future of education

This is a delightful topic for discussion. Everyone wants to know what the future will be like, and all are agog to hear the latest forecasts. Knowledge of the future is an age-old quest. In the modern era, the quest has taken on new importance because of the quality and pace of change on all fronts. Perhaps for the first time in recorded human history, we can no longer be certain about our expectations for the future, yet we continue to seek that certainty.

The starting point for the positivistic approach is to ask, "What will the future of education be like?" Futurists, policy scientists and educationists are only too happy to provide answers by making forecasts. A forecast falls within the category of assertions we call knowledge claims. Approaching the future exclusively as a domain of knowledge and cognitive activity, however, poses certain difficulties.

The first, and most obvious, is that the further we move into the future, the greater is the diversity of forecasts. In short, we are confronted with a diversity of knowledge claims, with a range of alternative futures. In the United States, for example, the futurist literature on education forecasts a very wide range of possibilities. We might place these on a continuum. At one end are forecasts which argue the likelihood of greater (more extensive) and more intensive, formal, organizational arrangements for education. In this situation, education in the future will be characterized by a burgeoning of credentialism, a proliferation of certificates granted by specialty boards upon completion of prescribed courses of instruction, or examinations for experience-based skills, rising levels of formal educational attainment, more intensive application of information and instructional technologies, and the formation of an ever upward-reaching compulsory education system.

At the other end of the continuum are to be located those forecasts which emphasize the likelihood of increasing informality to participation in learning activities. Learning will be more spontaneous, less systemic and less tied to the distribution of non-

educational benefits like job, income and social status. The diversity of forecasts about the future of education confronts us, then, with two problems. The first has to do with the status of these forecasts. On what grounds are they believable? The second problem has to do with choice. What are the grounds for choosing among these alternatives as a basis for policy formation, program development and human action?

At the heart of these problems is the particular status of knowledge claims about the future (of education) in modern, predictive (positivistic) science. This is the central question: What does it *mean* to claim that under clearly stipulated conditions (which may be set forth in a model), there is a percentage probability that within a given number of years (perhaps twenty-five) the form and content of education will be such and so?

In the first place, the employment of formal, predictive probability language in the arena of human and social affairs (quite often mathematical language) cannot hide the fact that forecasts are quite unlike predictions made in the experimental sciences. There are no educational forecasters (with whom I am acquainted, at least) who are either able or willing to stipulate all of the assumptions, definitions, operational and analytic procedures and axioms on which their models and forecasts are based. This is an aspect of the generic problem of ambiguity in social science, of *meanings*. We are all familiar with the historical debate on the epistemology of the social sciences *vis-à-vis* the natural sciences.

This problem might be kept at the historical level of esoteric and specialized philosophical debate were it not for another, far-reaching issue for which we futurists must take part of the blame. In our eagerness to emulate success in the attributes of modern, experimental science (discovery, confirmation and application), we employ the formal and quite esoteric language of natural science. We do so in an attempt to make the data fit the language, without first asking whether the domain of education, as an aspect of social experience, requires a different kind of inquiry and language *if* we are concerned about its future. To put it another way, and more blatantly, are we concerned with knowing the future or with doing something about it? Knowing and doing, at least in Western thought and practice, are two different kinds of activities.

The language of educational (and other) forecasters is esoteric, the vocabulary is specialized, the methodologies require a great deal of training. As a consequence, in the consciousness of the citizens the future of education is known and controlled by the forecasters. The

forecasters, the policy scientists, the planners (for there are no longer any philosophers) have become the new priests and shamans. The more the lay citizen and political leader does not understand the language, the more believable are the forecasts. Questionable (and, of course, contingent) knowledge claims about the future, then, begin to serve as the basis for policy formation. But the status of these forecasts is fraught with uncertainty. What kind of knowledge is this? Clearly, it is not scientific. But Westerners are uneasy about dealing with any kind of knowledge which does not purport to be scientific. Futurists and policy planners know this, which is one reason why they strive for the semblance of scientific knowledge claims. They achieve this semblance to the extent that they can employ the language of science.

Perhaps the chief claim to specialized status and power in modern, complex society is the extent to which a group employs a vocabulary which is not accessible to common sense and to the people who possess common sense — which is 99% of the inhabitants of this planet. Specialized language is one mark of self-empowerment and role-aggrandizement.

But education, grounded in the human disposition for deliberate learning, is a universal activity which is too important to leave solely to the educator. Likewise, the future (whatever that is) confronts us with our human possibilities, and is thus too important to leave solely to the futurists. This brings us to the second approach to understanding the relationship between education and the future.

education about the future

To be sure, some futurists, policy scientists and educators have confronted the problems sketched in above. They want to do something about them. They want to bring the future within reach of the citizen, the parent, the factory worker and farmer, the bureaucrat, and the children. Their aim is to approach the future as an educational problem.

What is their starting point? It is this. Given a rapidly increasing amount of information about the future (and forgetting for a moment the status of that information), how are we to disseminate it? Isn't that (it is held) an educational problem? We want to prepare ourselves (as adults) and our children to deal with the future, to live in the future, to adapt to the future. Must we not, then, educate ourselves and our children to this historically new situation, an era of rapid social transformation characterized by a consciousness of it?

But what kind of education do we mean? Here is the central issue:

education, as formal socialization, carries the past into the future. One generation transfers to the next its models, its beliefs, its behaviors, its legitimations, its shibboleths, its rules, its systems of sanctions and rewards. Until recently in human history, that inter-generational transference constituted an effective mode for maintaining the linear continuity of history. Confronted with the possibility (and the actual experience) of change, educators are no longer clear about their mission, about their means and ends. The educational situation becomes fraught with uncertainty, the guidelines for teaching and learning become ambiguous. What is to be taught, what is to be learned? Who are the teachers, who are the learners?

In the modern era, however, education is to be understood not only as formal socialization (a process and a practice for inter-generational transfers). It is also a huge, highly organized, formal system of social behavior, calling upon immense allocations of public expenditure budgets and employing (as teachers, students, administrators, knowledge workers, and so forth) a very large percentage of the population. In mass societies, moreover, distinctions between education and mass communication become blurred. Subtle forms of propaganda tend to replace the educative dialogue between teacher and learner, a dialogue which is reasoned, questive, accessible to all persons and based upon the rules of sound inquiry. The starting point of all sound inquiry is a good question about an important aspect of human experience which, when answered, leads to an even more fundamental question. In most mass education systems, to ask fundamental questions becomes disruptive conduct. In mass communications, of course, there is no chance to ask questions.

Futurists, policy analysts and educators *concerned* about the future are thus caught in this dilemma: are present education systems appropriate forums for teaching and communicating about the future? Still, the aim of this second approach is laudatory, for the intention is to get persons, both adults and children, to begin to think about the future. It is uncharted territory. Old myths and expectations are exploded daily. But still the question must be addressed: how are persons to think about the future?

The present organization of education lends itself primarily to the unexamined transfer of knowledge, skills and attitudes across generational lines. Not unexpectedly, then, we fall too easily into the traps contained in the first approach. In this approach, the way to think about the future, through devising a proper curriculum, is to consider the future as the domain of knowledge. In the United States during the past ten years, there has been a sizeable development in futures-oriented courses, both in higher and secondary education. Hundreds

of colleges and universities now give such courses for credit. But (with some exceptions), the technical approach is to equip students with an appreciation of (and perhaps some small skills in) forecasting methodologies. To paraphrase Paulo Freire, we want to fill their (empty) heads with a range of substantive forecasts about the future of economy, family life, welfare systems, international relations, technological developments or fertility rates.

In short, even in this second approach, the domain of the future gets appropriated by the modern tendency to consider all human questions (and education is above all a human question) as knowledge questions of the kind we have been asking with great success in the hard sciences, in which we seek certainty through causal explanations. That approach can lead to only two consequences: (a) the development of a preventive stance towards the future or (b) the development of an adaptive stance.

To be sure, some alternative futures (for example, nuclear war or mass starvation) we should aim to prevent. But which ones?

To be sure, towards some futures we must and/or should adapt. But which ones? Towards some futures, human beings, in so far as they are human, should not adapt. But which ones? And why? And who decides? And what are the choices?

These questions are not readily amenable to the approaches summarized above. There must be discovered still a third way of understanding the relationship between education and the future.

education towards the future

Here, let us admit at the start that we are on uncertain ground. For we seek a breakthrough, an act of human discovery in which all persons participate. If we knew what we were to discover, it would not be a discovery. Still, some starting points may be taken as action hypotheses, to be tested in the crucible of concrete experience. Such tests have already begun.

The third approach is heuristic, i.e., it is grounded in the capacity of persons to learn the future (as distinguished from being educated about the future). But the future is no longer to be considered, primarily, the domain of knowledge. It is the domain of action. We know (or hope/try to know) the past. We act towards the future. What, then, are the grounds for human actions, for social policies expressive of these actions? How should we choose among our possible actions?

In the heuristic or discovery approach to the relationship between

education and the future, we enter the domain of judgment, choice and decision. Consider once again the problem of alternative futures, of diverse forecasts about what the future will be like. For which ones should we prepare our children? Either we make a best bet (a hunch, a reasoned analysis or, more usually, a political/normative shibboleth inherited from the past) and form educational policies and programs to fulfill that bet (which is a special case of self-fulfilling prophecy); or we confront the supremely difficult task of preparing ourselves to engage in those activities appropriate to an era of uncertainty and ambiguity in which our main hope lies in the discovery, legitimation and expression of our moral competences, the competences of international action, individual and collective.

The methodology of this third approach is called action-inquiry. The practice is futures-invention.* The stance towards the future is neither preventive nor adaptive. It is inventive. The claim is that we should attempt to bring into existence not-yet-occurred states of affairs, new human practices which enable us to organize our social conduct (in all of its forms) in new ways. One place to start is with education; and the futures-invention activities are in themselves educative. They are a form of teaching and learning the future in which persons (as participants in the practice of futures-invention) aim to enable each other to discover their intentions towards the future, the action by which these intentions may be actualized in the present, the consequences of these actions, the limits to these actions: in short, their human possibilities.

This third approach is novel, relatively untried in contemporary education systems and full of hazards. After some years engaged in the more conventional practices of policy analysis and its dissemination, my own work is now exclusively in this area. It has focused for the most part on adult participants, i.e., persons who, whatever their chronological age and social position, possess the status of agency and personhood. But in principle, that is all persons, irrespective of their ascribed or achieved status or their levels of formal educational attainment.

The approach is straightforward, and is based on the question, "What kind of future do you want to bring about?" That question can be asked in many ways and within different formats. But it is a universal question. The right to answer it is distributed throughout the human population and is not restricted to specialists, government

*A brief bibliography on futures-invention is located at the end.

leaders, futurists, policy scientists or educators. In short, one begins with a group of persons, confronted with some practical problem, and asks them about their intentions (which always involve persons and are about the future). In confronting that question, persons are then enabled to deal with the problematics of a world in transformation:

- How do you know your intentions?
- Do you share these intentions with any other persons (who also have and can know theirs)?
- How might you most effectively translate these intentions into actions in the present?
- What are the limits to your intentions and to your actions in this world? How do you know these limits? Who says they are limits?
- What are the consequences (both positive and negative) of the actualization of these intentions? . . . for yourself, for other persons, for institutional formations carried over from the past?
- How can we emancipate ourselves from the limits to our intentional actions which we judge no longer efficacious?

How does one begin this form of action-inquiry? With whom does one begin? When and where does one begin? How do we deal with problems of disappointments, frustrations and the ambiguity inherent in all human action?

There are certain caveats which can be drawn from experience gathered from conducting futures-invention activities with thousands of citizens in the United States, from all walks of life, confronting a wide range of concrete problems. But we might remind ourselves that, "Laws are to be discovered, rules are to be broken." Futures-invention breaks rules, including its own, because that is the law of discovery.

who?

Because *every* person has the competence, in principle, to invent the future (an intrinsic quality of their agency and subjecthood in this world), one can begin with *any* person. In practice, this has meant locating persons who are confronted with a concrete problem (or set

of problems), i.e., with a social conflict, with an unmet need (as *they* define it), with a tension between what they want to do and to have and what they do and have, with a dissatisfaction. But it must reside in their consciousness, emerging from their concrete experience in a specific action-setting (an organization, a community or neighborhood, their work place, family, church, political party, civic association, trade union, business, or classroom.)

But the person who begins futures-invention quickly discovers a law: that in action-inquiry, we are all teachers and we are all learners. These are not roles, but activities, in which the competences are distributed among all participants.

We begin, then, in practice, with persons who are prepared to initiate this inquiry into the future as a mode of self-discovery and as a set of activities aimed at bringing into existence new practices and understandings (e.g., new policies and programs).

Clearly, this mode is participatory. At the initial state, however, we do not concern ourselves with persuading every person to participate. Rather, we seek those persons, in specific action-settings, who are prepared to begin, i.e., who are prepared to take the risks. Lest one think that these are solely desperate human beings, it can be said that the willingness to take risks is also randomly distributed throughout a given population. Our skill is to listen carefully in order to discover such persons within a specific action-setting.

A consequence of this approach is that the teacher/facilitator/planner must be *invited* into the action-setting where are gathered persons who are prepared to invent the future. These procedures cannot be forced upon other persons. If they do not intend to participate or if, once begun, they discover the activities are too risky, they “vote with their feet.” They leave. And that is their right and competence. To deprive persons, by whatever means, of their right to say “No” is to deprive them of a most fundamental quality of their agency.

But . . . how can we enable persons to say “Yes” to the future as inventors and to themselves as self-discoverers? That is the most practical issue confronting futures-invention.

what?

What do we begin with? Do persons just come together and talk, satisfy each other’s egos, commiserate with each other’s problems? To the contrary, one must discover a potential *matter of common*

concern: an issue, a topic, a problem about which people are prepared to deal with each other even if they define the concern, the problem differently. These are always practical matters, i.e., issues for and about collective actions. The variety of these contents is enormous just because the legitimacy of the ways we do things in this world has so substantially eroded. The issues, in fact, have covered the whole range of human concern: health care, education, sexism, governance, illiteracy, distributive justice, race relations, citizen alienation, crime and prisons, old age, family life breakdown, welfare, unemployment and poverty, mass communications, nation-state conflict, quality of life, urban disintegration, ecological and environmental issues, and so on.

where?

We have already suggested that one begins in concrete action-settings. Quite often these are conventional organizations: schools, hospitals, colleges, businesses, unions, churches, or political parties. For organization is the most prevalent form of collective action in the modern era. But the concrete action-setting may be non-organizational, in the formal (sociological) sense. We have done futures-invention in communities, in neighborhoods, in States and regional settings. Here, citizens and leaders come together to investigate their intentions and actions within the larger, and more amorphous, setting of governance (as distinguished from governments). In the State of Washington, for example, we have used this approach with thousands of citizens to formulate alternative policies for that State for the next twenty years. In the State of Colorado, we have used this approach to invent the future of adult education and learning; in the State of Florida, to invent the future of the elderly.

In all cases, however, we seek to enable persons to re-discover their civic competences, to re-discover their office of citizenship, be it within or without a conventional organizational or civic setting. As they learn to do this, they also begin to formulate alternative policies and programs about the issues which confront them viewed from the vantage point of a desirable future which they are prepared to articulate.

how?

One must try various formats. The most popular form of futures-invention is a project which is negotiated with a steering committee

composed of representatives of the persons who will participate. Sometimes the negotiations are lengthy and difficult, for the participants often begin by wanting immediate answers to their questions about what the future will be like, or guaranteed solutions to their problems. Such answers are not given and such guarantees are not offered. As a consequence, many organizations and associations decide that they want no part of this approach. Like most of us, they seek knowledge about the future, on the premise that if we *know* what the future will be like, we will *know* what to do. The falsity of this argument, however, must be discovered in practice. Once again, then, we can only begin with those persons who are, by reason of concrete experience, conscious of (though perhaps not articulate about) the ambiguities of contemporary social experience in an era of social transformation. In practice, this is a surprisingly large number of persons, certainly enough to engage the full energy and efforts of all persons who call themselves futurists.

Within the project, various formats are possible. We have found that the residential workshop setting is most conducive to the activities of futures-invention. These last from two days to a week. From experience to date, two workshops appear to be effective: the first focusing on futures-invention, in which the main activities enable persons to generate alternative futures based upon the discovery of their intentions about some practical matter of common concern; the second focusing on action-planning, in which participants move from the future back to the present in order to generate their collective commitment to undertake new actions and bring into existence new social practices.

Interspersed with these workshops are various kinds of diagnostic, case-study, interviewing, analytic and evaluative activities which come under the rubric of social action research. Fundamental to that rubric is the postulate that the knowledge and action hypotheses developed about and by the participants are appropriated by them for their own use in discovery and invention.

Alternative to the residential workshop is a format of meetings, once a week or month (like the Scandinavian Study Circles), in the evenings or on weekends, in which participants come together at times and places convenient to them and usually at low cost. There are substantial problems in teaching and learning futures-invention under these alternative formats, but a principle must be invoked: we start with participants where they are, not where we would like them to be; at their convenience, not ours; within the limits of their resources, financial and human; on their problem, not ours. Thus, some projects continue over a year; some begin and end with one workshop.

There is, of course, always that question which we find constantly directed towards our efforts. It is, "What are the results?"

It is easier to point out what does not result from action-inquiry than what does. For example, I would be the last person to claim that the world is any better off now than it was before we began futures-invention. We can point to thousands of citizens who are prepared to comment favorably on their self-discoveries and their futures-inventions, on their participation in what Alvin Toffler calls "anticipatory democracy." In the short run, we can see some stirrings, some movements among persons within specific organizational settings and within the more ambiguous civic settings — a new policy, a new program, a new plan. Still, the injustices we perpetrate on each other in this world are no less abundant.

Our aim is to enable persons to appropriate the future in such a way that they can do something about it in the present. We do it because that is our intention and our project, in which we engage with hope but with no expectations of either success or failure. Most of the criteria for success and failure in real-life settings come to us from the past, and are of little present use when we confront the human predicament. We seek to enable persons to discover new criteria for their actions. Until these are discovered and legitimated (until the future has become the present), we must resort to the practices of action-inquiry founded on the principle that we are agents in this world and oriented towards discovering what this might mean in practice.

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The literature on and documentation about futures-invention, action planning, social action strategy invention and action-inquiry is not extensive. A bibliography is summarized below. These materials can be ordered from The Futures-Invention Project, Syracuse Research Corporation, Merrill Lane, Syracuse, New York, 13210, or from the publishers as appropriate.

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