AFTER DESCHOOLING, WHAT?

Ivan Illich

with an introduction by Ian Lister

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Schools are in crisis, and so are the people who attend them. The former is a crisis in a political institution; the latter is a crisis of political attitudes. This second crisis, the crisis of personal growth, can be dealt with only if understood as distinct from, though related to, the crisis of the school.

Schools have lost their unquestioned claim to educational legitimacy. Most of their critics still demand a painful and radical reform of the school, but a quickly expanding minority will not stand for anything short of the prohibition of compulsory attendance and the disqualification of academic certificates. Controversy between partisans of renewal and partisans of disestablishment will soon come to a head.

As attention focuses on the school, however, we can be easily distracted from a much deeper concern: the manner in which learning is to be viewed. Will people continue to treat learning as a commodity—a commodity that could be more efficiently produced and consumed by greater numbers of people if new institutional arrangements were established? Or shall we set up only those institutional arrangements that protect the autonomy of the learner—his private initiative to decide what he will learn and his inalienable right to learn what he likes rather than what is useful to somebody else? We must choose between more efficient education of people fit for an increasingly efficient society and a new society in which education ceases to be the task of some special agency.

Schools reproduce society

All over the world schools are organized enterprises designed to reproduce the established order, whether

this order is called revolutionary, conservative, or evolutionary. Everywhere the loss of pedagogical credibility and the resistance to schools provide a fundamental option: shall this crisis be dealt with as a problem that can, and must, be solved by substituting new devices for school and readjusting the existing power structure to fit these devices? Or shall this crisis force a society to face the structural contradictions inherent in the politics and economics of any society that reproduces itself through the industrial process?

In the United States and Canada huge investments in schooling only serve to make institutional contradictions more evident. Experts warn us: Charles Silberman's report to the Carnegie Commission, published as *Crisis in the Classroom*,[1] has become a best-seller. It appeals to a large public because of its well-documented indictment of the system—in the light of which his attempts to save the school by patching up its most obvious faults pall into insignificance. The Wright Commission,[2] in Ontario, had to report to its government sponsors that postsecondary education is inevitably and without remedy taxing the poor disproportionately for an education that will always be enjoyed mainly by the rich. Experience confirms these warnings: students and teachers drop out; free schools come and go. Political control of schools replaces bond issues on the platforms of school board candidates, and —as recently happened in Berkeley—advocates of grassroots control are elected to the board.

On March 8, 1971, Chief Justice Warren E. Burger delivered the unanimous opinion of the court in the case of *Griggs v. Duke Power Co.* Interpreting the intent of Congress in the equal opportunities section of the 1964 Civil Rights Act, the Burger Court ruled that any school degree or any test given prospective employees must

'measure the man for the job,' not 'the man in the abstract.' The burden for proving that educational requirements are a 'reasonable measure of job performance' rests with the employer. In this decision, the court ruled only on the use of tests and diplomas as means of racial discrimination, but the logic of the Chief Justice's argument applies to any use of an educational pedigree as a pre-requisite for employment. 'The Great Training Robbery' so effectively exposed by Ivar Berg[3] must now face challenge from congeries of pupils, employers, and taxpayers.

In poor countries schools rationalize economic lag. The majority of citizens are excluded from the scarce modern means of production and consumption, but long to enter the economy by way of the school door. And the liberal institution of compulsory schooling permits the well-schooled to impute to the lagging consumer of knowledge the guilt for holding a certificate of lower denomination, thereby rationalizing through a rhetorical populism that is becoming increasingly hard to square with the facts.

Upon seizing power, the military junta in Peru immediately decided to suspend further expenditures on free public school. They reasoned that since a third of the public budget could not provide one full year of decent schooling for all, the available tax receipts could better be spent on a type of educational resources that make them more nearly accessible to all citizens. The educational reform commission appointed by the junta could not fully carry out this decision because of pressures from the school teachers of the APRA, the Communists, and Cardinal Archbishop of Lima. Now there will be two competing systems of public education in a country that cannot afford one. The resulting contradictions will confirm the original judgment of the junta.

For ten years Castro's Cuba has devoted great energies to rapid-growth popular education,[4] relying on available manpower, without the usual respect for professional credentials. The initial spectacular successes of this campaign, especially in diminishing illiteracy, have been cited as evidence for the claim that the slow growth rate of other Latin American school systems is due to corruption, militarism, and a capitalist market economy. Yet, now, the hidden curriculum of hierarchical schooling is catching up with Fidel and his attempt to school-produce the New Man. Even when students spend half the year in the cane fields and fully subscribe to 'fidelismo', the school trains every year a crop of knowledge consumers ready to move on to new levels of consumption. Also, Dr. Castro faces evidence that the school system will never turn out enough certified technical manpower. Those licensed graduates who do get the new jobs destroy, by their conservatism, the results obtained by noncertified cadres who muddled into their positions through on-the-job training. Teachers just cannot be blamed for the failures of a revolutionary government that insists on the institutional capitalization of manpower through a hidden curriculum guaranteed to produce a universal bourgeoisie.

This crisis is epochal. We are witnessing the end of the age of schooling. School has lost the power, which reigned supreme during the first half of this century, to blind its participants to the divergence between the egalitarian myth its rhetoric serves and the rationalization of a stratified society its certificates produce. The loss of legitimacy of the schooling process as a means of determining competence, as a measure of social value, and as an agent of equality threatens all

political systems that rely on schools as the means of reproducing themselves.

School is the initiation ritual to a society oriented toward the progressive consumption of increasingly less tangible and more expensive services, a society that relies on worldwide standards, large-scale and long-term planning, constant obsolescence through the built-in ethos of never-ending improvements: the constant translation of new needs into specific demands for the consumption of new satisfactions. This society is proving itself unworkable.

Superficial solutions

Since the crisis in schooling is symptomatic of a deeper crisis of modern industrial society, it is important that the critics of schooling avoid superficial solutions. Inadequate analysis of the nature of schooling only postpones the facing of deeper issues. But most criticism of the schools is pedagogical, political, or technological. The criticism of the educator is levelled at what is taught and how it is taught. The curriculum is outdated, so we have courses on African culture, on North American imperialism, on Women's Liberation, on food and nutrition. Passive learning is old-fashioned, so we have increased student participation, both in the classroom and in the planning of curriculum. School buildings are ugly, so we have new learning environments. There is concern for the development of human sensitivity, so group therapy methods are imported into the classroom.

Another important set of critics is involved with the politics of urban school administration. They feel that the poor could run their schools better than a

centralized bureaucracy that is oblivious to the problems of the dispossessed. Black parents are enlisted to replace white teachers in the motivation of their children to make time and find the will to learn.

Still other critics emphasize that schools make inefficient use of modern technology. They would either electrify the classroom or replace schools with computerized learning centres. If they follow McLuhan, they would replace blackboards and textbooks with multimedia happenings; if they follow Skinner, they would compete with the classical teacher and sell economy packages of measurable behavioural modifications to cost-conscious school boards.

I believe all these critics miss the point, because they fail to attend to what I have elsewhere called the ritual aspects of schooling—what I here propose to call the 'hidden curriculum,' the structure underlying what has been called the certification effect. Others have used this phrase to refer to the environmental curriculum of the ghetto street or the suburban lawn, which the teacher's curriculum either reinforces or vainly attempts to replace. I am using the term 'hidden curriculum' to refer to the structure of schooling as opposed to what happens in school, in the same way that linguists distinguish between the structure of a language and the use the speaker makes of it.

The real hidden curriculum

The traditional hidden curriculum of school demands that people of a certain age assemble in groups of about thirty under the authority of a professional teacher for from five hundred to a thousand times a year. It does not matter if the teacher is authoritarian so long as it is

the teacher's authority that counts; it does not matter if all meetings occur in the same place so long as they are somehow understood as attendance. The hidden curriculum of school requires—whether by law or by fact—that a citizen accumulate a minimum quantum of school years in order to obtain his civil rights.

The hidden curriculum of school has been legislated in all the united nations from Afghanistan to Zambia. It is common to the United States and the Soviet Union, to rich nations and poor, to electoral and dictatorial regimes. Whatever the ideologies and techniques explicitly transmitted in their school system, all these nations assume that political and economic development depend on further investment in schooling.

The hidden curriculum teaches all children that economically valuable knowledge is the result of professional teaching and that social entitlements depend on the rank achieved in a bureaucratic process. The hidden curriculum transforms the explicit curriculum into a commodity and makes its acquisition the securest form of wealth. Knowledge certificates—unlike property rights, corporate stock, or family inheritance—are free from challenge. They withstand sudden changes of fortune. They convert into guaranteed privilege. That high accumulation of knowledge should convert to high personal consumption might be challenged in North Vietnam or Cuba, but school is universally accepted as the avenue to greater power, to increased legitimacy as a producer, to further learning resources.

For all its vices, school cannot be simply and rashly eliminated; in the present situation it performs certain important negative functions. The hidden curriculum, unconsciously accepted by the liberal pedagogue, frustrates his conscious liberal aims, because it is

inherently inconsistent with them. But, on the other hand, it also prevents the take-over of education by the programmed instruction of behavioural technologists. While the hidden curriculum makes social role depend on the process of acquiring knowledge, thus legitimizing stratification, it also ties the learning process to full-time attendance, thus illegitimizing the educational entrepreneur. If the school continues to lose its educational and political legitimacy, while knowledge is still conceived as a commodity, we will certainly face the emergence of a therapeutic Big Brother.

The translation of the need for learning into the demand for schooling and the conversion of the quality of growing up into the price tag of a professional treatment changes the meaning of 'knowledge' from a term that designates intimacy, intercourse, and life experience into one that designates professionally packaged products, marketable entitlements, and abstract values. Schools have helped to foster this translation.

Of course schools are by no means the only institutions that pretend to translate knowledge, understanding, and wisdom into behavioural traits the measurement of which is the key to prestige and power. Nor are schools the first institution used to convert knowledge to power. But it is in large measure the public school that has parlayed the consumption of knowledge into the exercise of privilege and power in a society in which this function coincided with the legitimate aspirations of those members of the lower middle classes for whom schools provided access to the professions.

Expanding the concept of alienation

Since the nineteenth century, we have become accustomed to the claim that man in a capitalist economy is alienated from his labour, that he cannot enjoy it, and that he is deprived of its fruits by those who own the tools of production. Most countries that officially subscribe to Marxist ideology have had only limited success in changing this exploitation, and then usually by shifting its benefits from the owners to the New Class and from the living generation to the members of the future nation-state.

The concept of alienation cannot help us understand the present crisis unless it is applied not only to the purposeful and productive use of human endeavour but also to the use made of men as the recipients of professional treatments. An expanded understanding of alienation would enable us to see that in a service-centred economy man is estranged from what he can 'do' as well as from what he can 'make', that he has delivered his mind and heart over to therapeutic treatment. Even more completely than he has sold the fruits of his labour.

Schools have alienated man from his learning. He does not enjoy going to school. If he is poor, he does not get the reputed benefits; if he does all that is asked of him, he finds his security constantly threatened by more recent graduates; if he is sensitive, he feels deep conflicts between what is and what is supposed to be. He does not trust his own judgment, and even if he resents the judgment of the educator, he is condemned

to accept it and to believe that he cannot change reality. The converging crisis of ritual schooling and of acquisitive knowledge raises the deeper issue of the tolerability of life in an alienated society. If we formulate principles for alternative institutional arrangements and an alternative emphasis in the conception of learning, we will also be suggesting principles for a radically alternative political and economic organization.

Just as the structure of one's native language can be grasped only after he has begun to feel at ease in another tongue, so the fact that the hidden curriculum of schooling has moved out of the blind spot of social analysis indicates that alternative forms of social initiation are beginning to emerge and are permitting some of us to see things from a new perspective. Today it is relatively easy to get wide agreement on the fact that gratuitous, compulsory schooling is contrary to the political self-interest of an enlightened majority. School has become pedagogically indefensible as an instrument of universal education. It no longer even fits the needs of the seductive salesman of programmed learning. Proponents of recorded, filmed, and computerized instruction used to court the schoolmen as business prospects; now they are itching to do the job on their own.

As more and more sectors of society become dissatisfied with school and conscious of its hidden curriculum, increasingly large concessions are made to translate their demands into needs that can be served by the system—and thus disarm their dissent. As the hidden curriculum moves out of the darkness and into the twilight of our awareness, phrases such as the 'deschooling of society' and the 'disestablishment of schools' become instant slogans. I do not think these

phrases were used before last year. This year they have become, in some circles, the badge and criterion of the new orthodoxy. Recently I talked by amplified telephone to students in a seminar on deschooling at the Ohio State University College of Education. Everett Reimer's book on deschooling became a popular college text even before it was commercially published. But this is urgently important. Unless the radical critics of school are not only ready to embrace the deschooling slogan but also prepared to reject the current view that learning and growing up can be adequately explained as a process of programming, and the current vision of social justice based on it—more obligatory consumption for everybody—we may face the charge of having provoked the last of the missed revolutions.

Schools are too easy targets

The current crisis has made it easy to attack schools. Schools, after all, are authoritarian and rigid; they do produce both conformity and conflict; they do discriminate against the poor and disengage the privileged. These are not new facts, but it used to be a mark of some boldness to point them out. Now it takes a good deal of courage to defend schools. It has become fashionable to poke fun at alma mater, to take a potshot at the former sacred cow.

Once the vulnerability of schools has been exposed, it becomes easy to suggest remedies for the most outrageous abuses. The authoritarian rule of the classroom is not intrinsic to the notion of an extended confinement of children in schools. Free schools are practical alternatives; they can often be run more cheaply than ordinary schools. Since accountability

already belongs to educational rhetoric, community control and performance contracting have become attractive and respectable political goals. Everyone wants education to be relevant to real life, so critics talk freely about pushing back the classroom walls to the borders of our culture. Not only are alternatives more widely advocated, they are often at least partially implemented: experimental schools are financed by school boards; the hiring of certified teachers is decentralized; high school credit is given for apprenticeship and college credit, for travel; computer games are given a trial run.

Most of the changes have some good effects: the experimental schools have fewer truants; parents have a greater feeling of participation in the decentralized districts; children who have been introduced to real jobs do turn out more competent. Yet all these alternatives operate within predictable limits, since they leave the hidden structure of schools intact. Free schools, which lead to further free schools in an unbroken chain of attendance, produce the mirage of freedom. Attendance as the result of seduction inculcates the need for specialized treatment more persuasively than reluctant attendance enforced by truant officers. Free school graduates are easily rendered impotent for life in a society that bears little resemblance to the protected gardens in which they have been cultivated. Community control of the lower levels of a system turns local school board members into pimps for the professional hookers who control the upper levels. Learning by doing is not worth much if doing has to be defined, by professional educators or by law, as socially valuable learning. The global village will be a global schoolhouse if teachers hold all the strings. It would be distinguishable in name only from a global madhouse run by social therapists or

a global prison run by corporation wardens.

In a general way I have pointed out the dangers of a rash, uncritical disestablishment of school. More concretely, these dangers are exemplified by various kinds of co-option that change the hidden curriculum without changing the basic concepts of learning and of knowledge and their relationship to the freedom of the individual in society.

Benign inequality

The rash and uncritical disestablishment of school could lead to a free-for-all in the production and consumption of more vulgar learning, acquired for immediate utility or eventual prestige. The discrediting of school-produced, complex, curricular packages would be an empty victory if there were no simultaneous disavowal of the very idea that knowledge is more valuable because it comes in certified packages and is acquired from some mythological knowledge-stock controlled by professional guardians. I believe that only actual participation constitutes socially valuable learning, a participation by the learner in every stage of the learning process, including not only a free choice of what is to be learned and how it is to be learned but also a free determination by each learner of his own reason for living and learning–the part that his knowledge is to play in his life.

Social control in an apparently deschooled society could be more subtle and more numbing than in the present society, in which many people at least experience a feeling of release on the last day of school. More intimate forms of manipulation are already common, as the amount learned through the media

exceeds the amount learned through personal contact in and out of school. Learning from programmed information always hides reality behind a screen.

Let me illustrate the paralysing effects of programmed information by a perhaps shocking example. The tolerance of the American people to United States atrocities in Vietnam is much higher than the tolerance of the German people to German atrocities on the front, in occupied territories, and in extermination camps during World War II. It was a political crime for Germans to discuss the atrocities committed by Germans. The presentations of U.S. atrocities on network television is considered an educational service. Certainly the population of the United States is much better informed about the crimes committed by its troops in a colonial war than were the Germans about the crimes committed by its SS within the territory of the Reich. To get information on atrocities in Germany meant that one had to take a great risk; in the United States the same information is channelled into one's living room. This does not mean, however, that the Germans were any less aware that their government was engaged in cruel and massive crime than are contemporary Americans. In fact, it can be argued that the Germans were *more* aware precisely because they were not psychically overwhelmed with packaged information about killing and torture, because they were not drugged into accepting that everything is possible, because they were not vaccinated against reality by having it fed to them as decomposed 'bits' on a screen.

The consumer of precooked knowledge learns to react to knowledge he has acquired rather than to the reality from which a team of experts has abstracted it. If access to reality is always controlled by a therapist and

if the learner accepts this control as natural, his entire worldview becomes hygienic and neutral; he becomes politically impotent. He becomes impotent to know in the sense of the Hebrew word *jdb*, which means intercourse penetrating the nakedness of being and reality, because the reality for which he can accept responsibility is hidden from him under the scales of assorted information he has accumulated.

The uncritical disestablishment of school could also lead to new performance criteria for preferential employment and promotion and, most importantly, for privileged access to tools. Our present scale of 'general' ability, competence, and trustworthiness for role assignment is calibrated by tolerance to high doses of schooling. It is established by teachers and accepted by many as rational and benevolent. New devices could be developed, and new rationales found, both more insidious than school grading and equally effective in justifying social stratification and the accumulation of privilege and power.

Participation in military, bureaucratic, or political activities or status in a party could provide a pedigree just as transferable to other institutions as the pedigree of grand-parents in an aristocratic society, standing within the Church in medieval society, or age at graduation in a schooled society. General tests of attitudes, intelligence, or mechanical ability could be standardized according to criteria other than those of the schoolmaster. They could reflect the ideal levels of professional treatment espoused by psychiatrist, ideologue, or bureaucrat. Academic criteria are already suspect. The Center for Urban Studies of Columbia University has shown that there is less correlation between specialized education and job performance in specialized fields than there is between specialized

education and the resulting income, prestige, and administrative power. Nonacademic criteria are already proposed. From the urban ghetto in the United States to the villages of China, revolutionary groups try to prove that ideology and militancy are types of 'learning' that convert more suitably into political and economic power than scholastic curricula. Unless we guarantee that job relevance is the only acceptable criterion for employment, promotion, or access to tools, thus ruling out not only schools but all other ritual screening, then deschooling means driving out the devil with Beelzebub.

The need for political objectives

The search for a radical alternative to the school system itself will be of little avail unless it finds expression in precise political demands: the demand for the disestablishment of school in the broadest sense and the correlative guarantee of freedom for education. This means legal protections, a political programme, and principles for the construction of institutional arrangements that are the inverse of school. Schools cannot be disestablished without the total prohibition of legislated attendance, the proscription of any discrimination on the basis of prior attendance, and the transfer of control over tax funds from benevolent institutions to the individual person. Even these actions, however, do not guarantee freedom of education unless they are accompanied by positive recognition of each person's independence in the face of school and of any other device designed to compel specific behavioural change or to measure man in the abstract rather than to measure man for a concrete job.

Deschooling makes strange bedfellows. The

ambiguity inherent in the breakdown of schooling is manifested by the unholy alliance of groups that can identify their vested interests with the disestablishment of school: students, teachers, employers, opportunist politicians, taxpayers, Supreme Court justices. But this alliance becomes unholy, and this bedfellowship more than strange, if it is based only on the recognition that schools are inefficient tools for the production and consumption of education and that some other form of mutual exploitation would be more satisfactory.

We can disestablish schools, or we can deschool culture. We can resolve provisionally some of the administrative problems of the knowledge industry, or we can spell out the goals of political revolution in terms of educational postulates. The acid test of our response to the present crisis is our pin-pointing of the responsibility for teaching and learning.

Schools have made teachers into administrators of programmes of manpower capitalization through directed, planned, behavioural changes. In a schooled society, the ministrations of professional teachers become a first necessity that hooks pupils into unending consumption and dependence. Schools have made 'learning' a specialized activity. Deschooling will be only a displacement of responsibility to other kinds of administration so long as teaching and learning remain sacred activities separate and estranged from fulfilling life. If schools were disestablished for the purpose of more efficient delivery of 'knowledge' to more people, the alienation of men through client relationships with the new knowledge industry would just become global.

Deschooling must be the secularization of teaching and learning. It must involve a return of control to another, more amorphous set of institutions, and its perhaps less obvious representatives. The learner must

be guaranteed his freedom without guaranteeing to society what learning he will acquire and hold as his own. Each man must be guaranteed privacy in learning, with the hope that he will assume the obligation of helping others to grow into uniqueness. Whoever takes the risk of teaching others must assume responsibility for the results, as must the student who exposes himself to the influence of a teacher; neither should shift guilt to sheltering institutions or laws. A schooled society must reassert the joy of conscious living over the capitalization of manpower.

Three radical demands

Any dialogue about knowledge is really a dialogue about the individual in society. An analysis of the present crisis of schools leads one, then, to talk about the social structure necessary to facilitate learning, to encourage independence and inter-relationship, and to overcome alienation. This kind of discourse is outside the usual range of educational concern. It leads, in fact, to the enunciation of specific political goals. These goals can be most sharply defined by distinguishing three general types of 'intercourse' in which a person must engage if he would grow up.

Get at the facts, get access to the tools, and bear the responsibility for the limits within which either can be used. If a person is to grow up, he needs, in the first place, access to things, places, processes, events, and records. To guarantee such access is primarily a matter of unlocking the privileged storerooms to which they are presently consigned.

The poor child and the rich child are different partly because what is a secret for one is patent to the other.

By turning knowledge into a commodity, we have learned to deal with it as with private property. The principle of private property is now used as the major rationale for declaring certain facts off limits to people without the proper pedigree. The first goal of a political programme aimed at rendering the world educational is the abolition of the right to restrict access to teaching or learning. The right of private preserve is now claimed by individuals, but it is most effectively exercised and protected by corporations, bureaucracies, and nation-states. In fact, the abolition of this right is not consistent with the continuation of either the political or the professional structure of any modern nation. This means more than merely improving the distribution of teaching materials or providing financial entitlements for the purchase of educational objects. The abolition of secrets clearly transcends conventional proposals for educational reform, yet it is precisely from an educational point of view that the necessity of stating this broad—and perhaps unattainable— political goal is most clearly seen.

The learner also needs access to persons who can teach him the tricks of their trades or the rudiments of their skills. For the interested learner, it does not take much time to learn how to perform most skills or to play most roles. The best teacher of a skill is usually someone who is engaged in its useful exercise. We tend to forget these things in a society in which professional teachers monopolize initiation into all fields and disqualify unauthorized teaching in the community. An important political goal, then, is to provide incentives for the sharing of acquired skills.

The demand that skills be shared implies, of course, a much more radical vision of a desirable future. Access to skills is restricted not just by the monopoly of

schools and unions over licensing: there is also the fact that the exercise of skills is tied to the use of scarce tools. Scientific knowledge is overwhelmingly incorporated into tools that are highly specialized and that must be used within complex structures set up for the 'efficient' production of goods and services for which demand becomes general while supply remains scarce. Only a privileged few get the results of sophisticated medical research, and only a privileged few get to be doctors. A relatively small minority will travel on supersonic airplanes, and only a few pilots will know how to fly them.

The simplest way to state the alternatives to this trend toward specialization of needs and their satisfaction is in educational terms. It is a question of the desirable use of scientific knowledge. In order to facilitate more equal access to the benefits of science and to decrease alienation and unemployment, we must favour the incorporation of scientific knowledge into tools or components within the reach of a great majority of people.

Insight into the conditions necessary for the wider acquisition and use of skills permits us to define a fundamental characteristic of postindustrial socialism. It is of no use—indeed it is fraudulent— to promote public ownership of the tools of production in an industrial, bureaucratic society. Factories, highways, and heavy-duty trucks can be symbolically '*owned*' by all the people, as the Gross National Product and the Gross National Education are pursued in their name. But the specialized means of producing scarce goods and services cannot be *used* by the majority of people. Only tools that are cheap and simple enough to be accessible and usable by all people, tools that permit temporary association of those who want to use them for a specific

occasion, tools that allow specific goals to emerge during their use—only such tools foster the recuperation of work and leisure now alienated through an industrial mode of production.

To recognize, from an educational point of view, the priority of guaranteeing access to tools and components whose simplicity and durability permit their use in a wide variety of creative enterprises is simultaneously to indicate the solution to the problem of unemployment. In an industrial society, unemployment is experienced as the sad inactivity of a man for whom there is nothing to make and who has 'unlearned' what to do. Since there is little really useful work, the problem is usually 'solved' by creating more jobs in service industries like the military, public administration, education, or social work. Educational considerations oblige me to recommend the substitution of the present mode of industrial production, which depends on a growing market for increasingly complex and obsolescent goods, by a mode of postindustrial production that depends on the demand for tools or components that are labour intensive and repair intensive, and whose complexity is strictly limited.

Science will be kept artificially arcane so long as its results are incorporated into technology at the service of professionals. If it were used to render possible a style of life in which each man could enjoy housing, healing, educating, moving, and entertaining himself, then scientists would try much harder to retranslate the discoveries made in a secret language into the normal language of everyday life.

Self evident educational freedoms

The level of education in any society can be gauged by the degree of effective access each of the members has to the facts and tools that—within this society—affects his life. We have seen that such access requires a radical denial of the right to secrecy of facts and complexity of tools on which contemporary technocracies found their privilege, which they, in turn, render immune by interpreting its use as a service to the majority. A satisfactory level of education in a technological society imposes important constraints on the use to which scientific knowledge is put. In fact, a technological society that provides conditions for men to recuperate personally (and not institutionally) the sense of potency to learn and to produce, which gives meaning to life, depends on restrictions that must be imposed on the technocrat who now controls both services and manufacture. Only an enlightened and powerful majority can impose such constraints.

If access to facts and use of tools constitute the two most obvious freedoms needed to provide educational opportunity, the ability to convoke peers to a meeting constitutes the one through which the learning by an individual is translated into political process—and political process, in turn, becomes conscious personal growth. Data and skills an individual might have acquired shape into exploratory, creative, open-ended, and personal meaning only when they are used in dialectic encounter. And this requires the guaranteed freedom for every individual to state, each day, the class

of issue which he wants to discuss, the class of creative use of a skill in which he seeks a match—to make this bid known—and, within reason, to find the circumstances to meet with peers who join his class. The rights of free speech, free press, and free assembly have traditionally meant this freedom. Modern electronics, photo-offset, and computer techniques in principle have provided the hardware that can provide this freedom with a range undreamt of in the century of enlightenment. Unfortunately, the scientific know-how has been used mainly to increase the power and decrease the number of funnels through which the bureaucrats of education, politics, and information channel their quick-frozen TV dinners. But the same technology could be used to make peer-matching, meeting, and printing as available as the private conversation over the telephone is now.

On the other hand, those who are both dispossessed and disabused of the dream of joy via constantly increasing quanta of consumption need to define what constitutes a desirable society. Only then can the inversion of institutional arrangement here drafted be put into effect—and with a technological society that values occupation, intensive work, and leisure over alienation through goods and services.

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