
VIEWPOINTS/CONTROVERSIES

EDUCATION IN THE

CHANGING CONTEXT:

NEW SOCIAL FUNCTIONS

Yogesh Atal

The changing development scene

More than half a century's development experience has occasioned critical scrutiny of development goals and the means used to attain them. The conferences held under the auspices of the United Nations in the last decade of the last century focused on assessment of the achievements and failures of the prevailing development paradigms. In particular, the World Summit for Social Development, held in Copenhagen in 1995, was a universal recognition of the world-wide crisis in social development. The gains in economic development, and even marked improvement in various indicators of modernization, did not resolve the crisis caused by the poverty, population and environment (PPE) spiral. In the report entitled *The state of the world's children 1994*, the United Nations Children's Fund (UNICEF) warned: 'There is a clear and growing danger that both present potential and past achievements may be overwhelmed, in the years ahead, by the growing crises of absolute poverty, rapid population growth, and increasing environmental pressures'.

The post-Second World War period was characterized by the twin processes of development and decolonization, fifty years of which have certainly led to remark-

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able achievements. World-wide illiteracy figures have decreased; urbanization has spread; there is greater electrification; industrial growth has been stupendous; great advances have been made in science and technology; and the processes of globalization have changed the political and economic geography of the world. The decolonization process has created an indigenous elite, and encouraged people to assert their cultural identities. Development and decolonization have thus helped to link national societies to the wider world on the one hand, and generated in them a new sense of belonging to their own culture on the other hand. However, the modernization brought about by the operation of these two processes has been a mixed blessing, creating ambivalence between the global and the local. The homogeneous world dreamt of by the propagators of modernization has not come to pass. No doubt, we live today in One World, but it continues to have many voices and a multitude of cultures. All societies are increasingly becoming plural, and are facing the difficult task of managing multiplicity.

Such changes have made the world of 2000 different from the world of the 1940s. The beginning of the era of development gave rise to hopes for a global village that would eliminate social and cultural distance, and overcome geographical obstacles to make all destinations reachable with greater speed. To a certain extent, the present era of globalization—albeit spoken of more in economic terms with growing liberalization—can be viewed as a major indicator of the realization of that noble dream. But *only* to a certain extent. Knowledge has opened gateways of information, it has expanded cognitive horizons, and ideas and values are arriving in each cultural context along with material goods (including technology) from different sources. But these continue to be culturally screened, politically censored and suitably accommodated. Through a process of attrition and accretion, cultural maps of individual countries are becoming differently contoured. Not only has development influenced cultures, but also cultures themselves have actively played their role in determining development.

When the Third World entered the development phase, it was guided by external orientation. Men, materials, money, and even management of the polity—the four Ms of the development paradigm—had to be imported from outside to guide development. That situation, however, has changed radically. Thanks to the expansion of education, developing world countries now have trained manpower to replace outside expertise, and their resource base is growing larger; rather than being mere suppliers of raw materials, they have become producers of exportable materials. Financially, they are moving towards self-sufficiency, while still being dependent on official development assistance. Also, different models of managing the polity have emerged; however, although they all claim to be ‘democratic’, no single definition of democracy can be applied to the differing political systems. Even the earlier emphasis on economic development as the key to all other development is being questioned. It is now agreed that economic development should serve the cause of social development rather than be an end in itself. In other words, the hitherto practised paradigm of development has been rendered unworkable, and countries are now in search of alternatives.

The growing disenchantment with the outcome of development in the past five decades has initiated a process of rethinking. The collapse of the communist States has sent out the message that the socialist path is seriously flawed. Similarly, the crisis in social development in the non-communist developed world has shown that all is not well with that model. The Third World is caught up in a web of ideologies and is hard pressed to find a path for the future. Set recipes have failed. The world community is somehow coming to the view that while countries have common problems, there are no—and there can be no—common solutions. The slogan ‘Think globally, act locally’ was fashioned to suggest that societies will have to come up with culturally rooted and locally appropriate solutions to the problems they confront, and that it is in this task that areas of international collaboration will have to be identified. This is the changing context in which the role of education will have to be redefined.

Education in the changing context

Education has undoubtedly played a major role in bringing about the momentous changes in world culture. The literacy profile of the globe has radically changed over the years. Currently, there are only seventeen countries—twelve in Africa and five in Asia—where adult literacy rates remain below 50%, and global literacy is approaching 80%. There are, however, still about 850 million adults in a world of 5 billion who live in the dark corridors of illiteracy, and most of these are in nine ‘giant’ countries. While the number of illiterates is enormous, their declining percentage is testimony to the success of our development effort. The Delhi Summit agreed to give priority to the eradication of illiteracy.

It is interesting to note, however, that despite the recognition of education as an important indicator of social development, the Preparatory Committee for the World Summit for Social Development did not originally include any specific commitment relating to education in the draft document to be adopted at the Summit. Not that it did not recognize the importance of education; but it was keen to propose a holistic approach to development to replace the sectoral approach hitherto used. The reference to education which it finally included was in a commitment that also dealt with health, culture and other related aspects. This was a reminder that education would have to develop new roles for itself in the changing environment. The Summit bade farewell to sectoral approaches and called for an inter-agency, inter-sectoral strategy for social development.

There is a clear recognition of the need for such an approach. But much remains to be done to ensure movement in that direction. Jacques Delors, Chairman of the International Commission on Education set up by UNESCO, was forthright in suggesting a sober approach so as not to oversell education. He wrote:

In confronting the many challenges that the future holds in store, humankind sees in education an indispensable asset in its attempt to attain the ideals of peace, freedom and social justice...[However] The Commission does not see education as a miracle cure or a magic

formula opening the door to a world in which all ideals will be attained, but as one of the principal means available to foster a deeper and more harmonious form of human development and thereby reduce poverty, exclusion, ignorance, oppression and war.²

Education must therefore rethink its strategies. It has become an ever-growing enterprise, not because of increasing enrolment ratios, but because of new demands being made on it by those already educated for re-entry into the system in order to learn new skills and for the continuous updating of skills and information. Education has moved from the classes to the masses, involving students from different socio-cultural backgrounds, whose parents differ in terms of their own schooling. The school system has to deal without delay with the twin problems of the fast-growing student population and the exploding frontiers of knowledge. Educationists must think of the future of education and of education for the future.

In today's world it is not enough to eradicate illiteracy. Education has equally to be concerned with those who are now classed as literate and who constitute 80% of the world's population. On the one hand, societies will have to halt the entry of people into the category of adult illiterates by ensuring the enrolment of the whole school-age population, and on the other hand, they will have to meet the demands of the literate population for more and higher education. Also, this education has to be relevant, provide employment and be socially productive.

Education today has assumed a broader meaning. The concept of education in the primitive world was virtually non-existent. It was merely the other name for socialization and enculturation. The family and the local community performed the function of the school for the new arrivals by inducting them into the culture. Basically, it was a transmission function—passing on culturally learnt behaviour to the younger generation. The home was at once the place for child care, learning and work. Socialization prepared children for entering the culture and the world of work. The *Weltanschauung* of primitive people was limited to their immediate cultural environs. It was with the growing differentiation of society that the family and the place of work became separated. In the more advanced oriental societies such as India, the *ashramas*—hermitages where the sages resided in order to meditate—performed the functions of the school. Learning there was basically cultural and religious, or in the art of warfare for princes. The concept of the school, in the present sense of the term, was introduced only after contact with the West, which is now called the North. The colonizers established schools to train people in non-traditional knowledge. It is this knowledge that formed part of modern education. The primitive societies of the unlettered thus came to be described as illiterate, which signified their closed world-views and ignorance about things modern, i.e. Western. While socialization meant transmission of traditional knowledge, education became a vehicle for transmission of knowledge from abroad. Of the three functions of education now universally acknowledged, the non-Western world was exposed only to knowledge dissemination; very little was done to involve the indigenous population in the generation of new knowledge (i.e. research) and in the use of knowledge. The purpose of modern education, provided by the colonizers, is best expressed in

an oft-quoted passage from Lord Macaulay, who said that the goal of modern education *in India* was 'to form a class who interprets between us and the millions we govern; a class of persons, Indian in blood and colour, but English in taste, in opinions, in morals and in intellect'. In that transitional phase, both the illiterate and those who learnt in traditional centres of learning were relegated to the ranks of the 'uneducated', and those who received a modern education through the new institution of the school became the *literati* and came to be identified as the intelligentsia. So small was their number, and so limited were their skills, that no distinction was possible between intellectuals and the intelligentsia. It was with the growth of schooling and the introduction of higher education that such a distinction became meaningful.

When the colonies started to become new nations, with the withdrawal of the colonialists after the Second World War, they enthusiastically adopted strategies to hasten the process of development, treating the North as the positive reference group. This was the time when the North itself had to rebuild itself from the ruins of the war. It was thus a period of reconstruction of the North, and of development of the South. In both situations, education had primacy: as a programme of cultural reconstruction, the North had to rebuild its educational institutions that had been destroyed by the ravages of war; and as a development goal, the South had to improve its literacy profile by learning the three Rs—reading, writing and arithmetic. This dual task was entrusted to UNESCO, and it guided UNESCO's programmes and activities in subsequent years.

Long years of sustained work by this lead agency have changed the education profile of the globe. No longer is there a need for a programme of reconstruction for the North, and increasingly only a smaller percentage of illiterates will have to be made literate in the countries of the South. The problem now is how to handle the new sets of demands being generated by rising literacy rates, and to equip our institutions of higher learning to respond to the challenges of the future.

In the field of education, we thus have a more varied agenda: to attend to the unfinished tasks of eradication of illiteracy and universalization of primary education; to respond to the new demands being made on the education system in individual countries and world-wide for secondary and higher education, vocational education, and research in a number of areas—not only science and technology but also the social sciences; and to anticipate future demands and prepare our education structures to meet them.

Educational development: net balance of consequences

In deciding the future social roles of education, it is necessary to see what expectations education has been able to meet and what unintended consequences have resulted that are a cause of concern for society.

One major failure of our effort has been the continuing existence of illiteracy in the world. While the percentage of illiterates has declined significantly, their actual numbers have increased. The world total of adult illiterates, and of school-age chil-

dren not yet enrolled in schools, is as large as the total population of present-day India. Making them literate is in itself a stupendous task. But a more difficult task is to contain the growing revolution in expectations among the literate and the educated. Existing systems have failed to provide the necessary space for the burgeoning number of students who wish to pursue their education beyond the primary and secondary levels. Having generated a desire for learning, and assigning high values to education, the existing infrastructure of education finds itself unable to accommodate all aspirants. Despite securing high grades in examinations, a number of students are denied access to the higher levels of learning. Nor are there enough jobs in the market to absorb them. Education has thus transformed the 'uneducated unemployed' into the 'educated unemployed'; in fact, many employed persons among the 'uneducated' turned to education in the hope of finding more dignified and better-paid jobs, and in the process were rendered jobless.

While extravagant claims are being made with regard to the role of education in eradicating poverty, empirical data from a wide variety of societal settings suggest that the relationship between poverty and education is much more complex. For example, world statistics indicate that the number of people below the poverty line stands at 1.3 billion—and is continuously rising—while the number of adult illiterates is around 850 million. Thus, even if all illiterates are classed as poor, there is still a sizeable number of the poor among the literates. More disturbing is the fact that in the Eastern European countries, which during the communist era denied the existence of poverty, there is an open acknowledgement of the scourge of poverty. These are the countries with almost 100% literacy, which had boasted of total employment in the previous era.³ Poverty is also prevalent in the countries of the developed world. Both these instances suggest that *in spite of* (perhaps not *because of*) education, a person can fall into poverty.

It is may be noted that together with the increasing levels of literacy and education, the past decades have witnessed the phenomenal growth of religious fundamentalism, corruption in high places, drug addiction, and even AIDS in highly educated societies, as well as the simultaneous growth of both feminism and prostitution. Education has nurtured revivalist tendencies and fostered the 'return to roots' movement, and cultural and ethnic identities are being created at sub-national levels, thus giving rise to social disharmony.

Changes brought about by scientific and technological advances have also created newer crises. Advances in medical sciences have reduced death rates and increased longevity but failed to curb birth rates, and have thus contributed to the population explosion; while industrialization has caused environmental pollution, the depletion of renewable sources of energy and global warming. The industrial systems have encouraged the centralization of populations in urban areas, which has led to the growth of mega cities and the relative neglect of rural areas. Advances in transportation and communications have increased mobility and encouraged migrations not only from the rural hinterland to metropolitan centres but also from developing countries to the developed countries. These large-scale international migrations have made all societies multicultural. They have created what I have

called elsewhere *sandwich cultures*⁴—migrant cultures sandwiched between the twin pressures of the parent culture and the host culture.

Education systems are being challenged by their clientele. Dissatisfaction is expressed by both students and potential employers. In an ever-changing economic situation, where the private sector is increasingly becoming the key employer of talent, the kind of education that is still imparted in schools and colleges is regarded as not very relevant. When the degrees awarded by the universities do not secure jobs, students rightly feel disillusioned. One consequence of this in India, for example, has been the suspension of convocation ceremonies. Convocations had become occasions for students to demonstrate their anger about the futility of degrees in the face of growing unemployment. With convocations gone, graduates now receive their degrees through the post. Universities have become hotbeds of politics where there are more political protests and strikes than classroom teaching or lively academic seminars and discussions. Even research-minded academic staff have started leaving the campus to join off-campus research institutes. This is not to suggest, however, that there is no longer a desire for learning. While formal institutions of learning have a deserted look, students crowd the surrogate institutions created in the private and informal sector to provide job-related training in specially designed sandwich courses. Such institutions charge heavily and yet operate at full capacity in several shifts without the politics that characterize the universities.

The following comment made by the Government of the Republic of Korea at the Asia-Pacific Economic Cooperation (APEC) meeting held in Seoul in 1997 is very relevant in this regard:

The emphasis on education for itself or on education for good members of a community without a large emphasis on preparation for future work is no longer appropriate. Such a view of education and work cannot be justified in a world where economic development is emphasised. [...] At present, in many economies, the education systems do not sufficiently reflect labour market conditions. Their inflexible and inefficient education systems could not meet the new economic environmental challenges.

There is a definite need to reorient our education. And this reorientation should be guided by two related factors: preparing the young for the future, and preparing the education systems to meet the demands of the future. The existing base for launching such an exercise is outlined below.

1. *The emerging educational profile.* The base of the literate and the educated today is much broader. Although differences exist in the literacy and educational profiles of different countries, what is common to them is the fact that each country has substantially improved its educational profile in the last fifty years with the result that today there are more literate and educated people in each society. There has been a visible growth in the indigenous intelligentsia and skilled personnel in almost all societies. The implication is that the demand for outside expertise is declining more and more. This is clearly reflected in the changing orientation of various projects funded by the United Nations, where

the foreign manpower component is being reduced as governments opt to implement them with their indigenous expertise.

2. *Migration of talent.* There is a noticeable trend, generally referred to as the 'brain drain', for skilled workers from the developing countries to move to other countries—not only to the developed countries of the West but also to other countries, particularly in the Middle East. Large-scale migrations from the developing Third World have made the societies of the North multicultural. The children of migrant families living simultaneously in two worlds—of a sandwich culture—pose different schooling problems.
3. *Growing inability of schools to accommodate growing numbers of students, and inadequate state support for education.* While there is concern at illiteracy rates and poor enrolment in schools, there is also a developing crisis of the failure of institutions of learning to accommodate ever-increasing numbers of students. Inadequacy of buildings, shortage of teachers, non-availability of teaching materials and equipment for classrooms and laboratories, and inefficient educational administration, now characterize education in most countries. Associated with this is the fact that most governments allocate less than 4% of their gross domestic product to education despite the rising demand and the recognition of the role of education in modernization and development. Much more disturbing is the fact that while the demand for higher education is growing, thanks to the success of literacy programmes and primary education, governments allocate a very small percentage of their paltry education budget to higher education.
4. *Rise of surrogate institutions.* To fill the void, surrogate institutions have come into being outside the formal education system. They provide short-term courses, and sandwich courses, and prepare students for various admission tests and competitive examinations. Charging enormous fees, these institutions are making profits and highlighting the redundancies of the conventional system of education. To quote Hirtt:

Because of the dearth of public spending, students are increasingly looking to private education. In the US, there is a trend toward 'home schooling'—children no longer attend school and are taught at home. Traditional public education is also coming in for strong criticism. Employers complain it is not geared to their needs and is not flexible enough. Schools in Europe are integrated into a centralized public system run by a bureaucracy that slows down the process of change or makes them impervious to demands for change from outside.⁵

5. *Alternative sources of funding.* Hirtt believes that under pressure from economic interests, a process of 'deregulating' education systems has begun. He thinks that 'the time for out-of-school education has come [...] the liberalization of the educational process thereby made possible will lead to control by education service providers who are more innovative than the traditional structures'.⁶

All this should be seen in the context of recent advances in science and technology, particularly the revolution brought about by information technology. This revolution has seriously challenged the *definition of literacy*. On the one hand, it has made the conventional definition of literacy redundant: it has made it possible for people to learn many things without knowing the alphabet, or even the language.⁷ At the same time, the new technology has created new forms of illiteracy. Today's literates will be tomorrow's illiterates if they do not become 'computerate'.⁸ *Incomputeracy* has already become a new form of illiteracy. In this sense, it is important to recognize that illiteracy, understood in the conventional sense, may no longer be an impediment to learning. We might also have to take measures to eradicate the new forms of illiteracy among the literates.

Education, which performed the socialization function in the past, has assumed the new responsibility of socializing people for the future. The role played in the primitive world by the family and the larger kinship group was taken over by the formal school in non-primitive societies. But today this role is increasingly being shared by several other agencies in both the formal and the informal sector, and by governmental and non-governmental organizations outside the conventional education systems. In such a situation, the monopoly of the ruling elite in determining the goals and content of education has been severely curtailed. The role set of a learner is greatly enlarged. There are persons other than teachers who have joined the ranks of the tutors; there are spaces other than the school and the classroom that provide the arena of interaction between the teacher and the learner; and there are sources other than the officially produced textbooks that offer opportunities for widening the knowledge base. Geographical distances between the teacher and the taught no longer obstruct their empathic proximity.

New functions for education

Social development strategies require accelerated efforts in order to complete the unfinished tasks and also to take corrective measures to deal with the negative consequences of past development strategies. If some of those consequences are attributable to the prevailing education system, that system cannot be expected to undo them. The cause of a crisis cannot be its solution. This is not to deny the importance of education; what is being emphasized is that the *kind of education* that has been imparted so far has contributed to the continuation and to the emergence of social crises. Thus, what is needed is to change the *kind of education*—its content, its emphases, its functions and the modalities by which it is imparted. To develop such a strategy, which has to be country-specific, it will be necessary to take into consideration changes occurring in both in society and education nationally and internationally. The intermeshing of these two variables is shown in Figure 1.

The changes/developments in society may be located in terms of (i) changes in social demography; (ii) changes in the knowledge base; (iii) changes in the economy; (iv) environmental changes; (v) political development; (vi) changes in cultural values and attitudes; (vii) social reforms and revolution; (viii) changes in the world order,

FIGURE 1. Matrix of changes occurring in education

Educational dimension [E] Ψ	Societal dimension [S]	
	National [N]	International [I]
National [N]	EN/SN	EN/SI
International [I]	EI/SN	EI/SI

such as globalization and liberalization, and the collapse of the Soviet Union; and (ix) the emergence of supranational epigenetic structures. Similarly, developments in education may relate to (i) educational demography, i.e. the student population's size and composition, and the teacher population; (ii) the educational administration; (iii) educational policy; (iv) changes in the education sub-system—institutional growth, administrative arrangements and governmental control; (v) funding sources and resource allocations; (vi) educational needs; (vii) pedagogy and educational technology; and (viii) the knowledge explosion. Changes in the two domains at the international level affect all societies, and their response to them is guided by the changes in the two domains at the national level. A national programme of education has to come to terms with the universal trends in the light of the specifics of the society in question, but it must not become parochial. It cannot divest itself of the growing sophistication. Being relevant to the culture does not mean going back to the corridors of history and the closure of all openings. Good education must not uproot people, but also it must not insulate them from the winds of change. In the changing circumstances, education must emphasize the process of knowing rather than familiarizing oneself with the known; it must be generic rather than overly specific, or else it will shelter obsolescence; and it must train the mind in an interdisciplinary—even a transdisciplinary—framework so that the learner is exposed to holistic principles of organization of knowledge. The Delors Commission has recognized this new need and recommended the strengthening of the four pillars of education—learning to know; learning to do; learning to live together, that is learning to live with others; and learning to be. Education is now seen as a process of learning throughout life.

In addition to socializing the young in the culture of the community, education is now seen as an agency to prepare for the future. This is a complex and difficult task, as the forces of change require societies to move into unknown futures or futures of those forces' making. Education has provided the capacity not only to look into the past of one's culture and live in its reflected glory, but also to compare the position of one's society in relation to other societies of the world—far and near—and to decide whether to be like any of them or remain different and yet changed. Furthermore, it has equipped people to predict and anticipate the future and, more important, to design their own blueprint for a future society.

The challenge ahead

The forces of globalization and liberalization are impacting on different aspects of society, including education. While the institution of the State has not been questioned, its limits are being recognized. Today's citizens are simultaneously becoming oriented to the system to which they belong, and to the wider world. It is the twin pressures of the endogenous and exogenous forces that are shaping the vision of our future. In thinking about change, we are becoming distanced from the earlier theories of unilinear evolution, which suggested a *staircase* approach which was later transformed into an *escalator* approach—although you have to go up the same stairs, you could be propelled to climb faster. The 'doubling period' index was one such measure to suggest how far societies are moving ahead but in the same direction. The thinking on the future done in the last two decades has changed this orientation. It is now accepted that we have to think of the future in plural terms. The future of the globe will consist of the plurality of futures of individual societies. And these 'futures' may not correspond to the futures of our imagination today. Recent advances in communication and information technology have nullified the staircase theory by introducing the concept of *leap-frogging*. All societies are simultaneously preparing themselves for the changes that are rapidly occurring in information technology. To quote a familiar example, Microsoft's version 2000 is arriving at the same time in all societies, and none is required to go through the previous versions of Windows or Microsoft Word to switch over to their new versions.

The developments referred to above suggest that education will have to prepare a mindset for unlearning and continuous learning. While the past may remain as an important reference point, in the sphere of learning the confluence of several factors is necessitating discontinuity with it. We will have not merely to prepare the next generation to face what we know and can anticipate, but also to nurture in it the capacity to cope with the uncertain future. Education is called upon to provide the people with the tools to facilitate their adjustment to the new dynamism of societies rather than succumbing to despair and disillusion.

What we need in the changed circumstances is a new vision of development—a vision that puts humankind in the middle and not on the margins. It is acknowledged that the poverty, economic dislocation, communal violence and political conflict that we witness today are partly—if not mainly—the result of past policies and development strategies that tended to neglect the human dimension. We also faltered on the ecological front by ruthless exploitation of the environment, causing serious ecological imbalances. We allowed our economics to overwhelm our sociology and ecology. We became sectoral in our approach and forgot the basic fact that cultures are not just the sum total of their parts but are integrated wholes, and that, therefore, any changes introduced in one part of the system inevitably have their repercussions and ramifications in the rest of the system. We continue to make the mistake of treating education as a closed system, undermining its interfaces with the world of work and with the realms of culture and polity.

There is a primordial relationship between education and culture. Education has to continually assess the demands made upon it by society at large, and must respond to them rather than continue to transmit outmoded skills and outdated information. The development imperatives, as well as the changing economic and technological environment, provide the context within which the agenda for education of the future ought to be drawn up.

Education thus faces a new challenge. The rapidly changing world scene already provides inklings of the future. Education must inform our todays with foresight of the tomorrows rather than hindsight of our yesterdays. We need to look forward. Let our past be our guide, and let our future be our inspiration.

It is time to initiate a fresh examination of our education system and develop a new agenda not only to tackle our present-day problems but also to meet the demands likely to be made on education in the coming years. To be sure, this is an enlargement of the role of education and not a replacement of the roles it has hitherto played. Education will continue performing its socialization and enculturation function, and making its contribution to the betterment of the present, but it is now called upon to participate in designing a desirable future.

The eradication of illiteracy is a major challenge, but its solutions will have to be sought in the context of each country. The programme will have to tackle not only the traditional forms of illiteracy but also the new illiteracies that are being created among the literates. Illiteracy eradication and universalization of primary education will create demands for secondary and tertiary education, and also for new forms of vocational education. The challenge to provide 'Education for All' is not a simple matter of just serving up a certain number of years of schooling through the quantitative expansion of educational opportunities for all sections of society. It is equally important to ensure the provision of quality education that is both relevant and helpful in improving the quality of life. It is in this respect that the Education for All decade that began with the 1990 Jomtien Conference is described as a 'collective failure'. Not only have we been unable to prevent the numbers of illiterates from increasing, but also there are as many as 125 million children of primary-school age who have never been enrolled in school, and another 150 million children who have not completed their primary education. We have failed in eradicating adult illiteracy, in school enrolment and in providing better learning. Despite strong commitments expressed by governments, state expenditure on education is abysmally low, which accounts for poorly trained teachers, crumbling infrastructures and non-relevant teaching materials. While all this has to be improved—if we regard education itself as an indicator of development—education systems will also have to prepare themselves for the new social roles of generation of new knowledge through relevant research, dissemination of research findings, and creation of an appropriate setting for knowledge- and information-based societies with their own blueprints for their futures.

Unlike in the past, the functions of education may in the future be taken up by a wide variety of structures, thus making the education system open up, and allowing school surrogates and college equivalents to share the responsibility for educat-

ing the coming generations. The future schools of the developing societies cannot be seen as a carbon copy of the present-day schools of developed societies. The time has come to halt the process of transplantation of institutional structures and teaching contents from one setting to another. This is not, however, to recommend insulation in order to prevent innovations that come from outside. The need is carefully to evaluate each innovation, irrespective of its source of origin, before its acceptance or rejection.

We must seriously re-read Illich's *Deschooling society*⁹ as we engage ourselves in *retooling* our societies.

Notes

1. In December 1993, India hosted the Summit of the Nine Most Populous Countries of the World—the 'giants'—under the joint auspices of the United Nations Educational, Scientific and Cultural Organization, the United Nations Children's Fund, the United Nations Population Fund and the United Nations Development Programme to discuss the problem of Education for All in those countries. These countries were Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan (five from Asia, and two each from Africa and Latin America).
2. J. Delors, 'Education: the necessary Utopia'. In: *Learning: the treasure within*, Paris, UNESCO, 1996, p. 13. [Report of the International Commission on Education for the Twenty-first Century.]
3. See: Y. Atal, ed., *Poverty in transition and transition in poverty*, Paris, UNESCO; Providence, RI, Berghahn Books, 1999; also: Y. Atal, ed., *Perspectives on educating the poor*, New Delhi, Abhinav Publications, 1997.
4. Y. Atal, Outsiders as insiders: the phenomenon of sandwich culture, *Sociological bulletin* (New Delhi), vol. 38, no. 1, March 1989, p. 23–41.
5. N. Hirtt, Will education go to market?, *UNESCO courier* (Paris), February 2000.
6. Ibid.
7. On one of my several visits to China, curiosity made me turn on the television in my hotel room. Knowing full well that I would not be able to understand a word, I was sure that I would soon turn it off. But I saw a programme where the host was showing the audience how to mend a damaged audio cassette. Although I could not understand a word, I watched his demonstration and learnt the 'how-to-do' of repairing a cassette. Language was no barrier.
8. I coined this word in my article for the *Encyclopedia of the future*, New York, Simon & Schuster Macmillan, 1996, vol. 1, p. 40.
9. I. Illich, *Deschooling society*, New York, Harper & Row, 1971.