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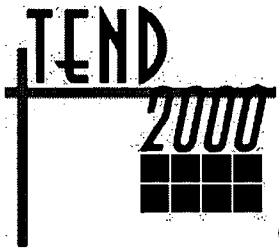
ABSTRACT

The most important worldwide goal of the 21st century should be universal education; that is, by the year 2099, every child, no matter where, should have access to free, state-sponsored education for 12 years. In committing themselves to the 100-year goal, each nation should keep in mind these 5 important facts: (1) within a nation with sufficient means, the goal can be achieved, and it has already been achieved in some nations; (2) achievement of the goal is a direct cause of the wealth of the nations that have achieved it; (3) the wealth of those nations is a direct cause of the prosperity of the more important of their citizens; (4) all the peoples of the world can take pride in the contributions to worldwide learning that have been made by their ancestors; and (5) outside direction of the effort to achieve educational goals in a nation is futile. Using the framework of the report of the International Commission on Education for the Twenty-First Century (Delors Report), specific ideas for achieving this goal under various political systems and throughout the lifespan can be determined. Five Web sites relating to the Delors Report are appended. (KC/CG)



Crossroads of the New Millennium

Universal Education: A Goal For The 21st Century

Prepared and Presented

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Workshop 1

Abstract

As the world enters the 21st century, a natural question for the state, in dealing with the education sector, is what its long-term goals should be. Our premise is that the most important worldwide goal of the 21st century should be universal education. By this we mean that, by the year 2099, every child, no matter how poor, in every country of the entire world, should have access to free (state-sponsored) education for twelve years. The great distance, which the world will have to travel in order to achieve this goal, is the reason why we have chosen to estimate a hundred years for the completion of the journey. Let us also not underestimate how many nations of the world will have to become involved in this. Lack of education is a worldwide problem.

In committing themselves to this hundred-year goal, each individual nation should keep in mind five important facts.

The first of these is that, within one nation having sufficient means, the goal can be achieved. We know this because there are certain nations in the world today in which the goal has been achieved.

The second is that the achievement of the goal, in those nations which have achieved it, is a direct cause of the wealth of those nations. Many nations today are temporarily wealthy because of certain natural resources which they possess. Prudent nations are already taking steps to diversify their economies. The true source of permanent wealth for a nation, however, is an educated populace.

The third is that the wealth of those wealthy nations is in turn a direct cause of the prosperity of the more important of their citizens. This may seem a paradox in view of the immense sums that those nations spend on education. It is, however, true, as the citizens of those nations will attest.

The fourth is that all the peoples of the world can take pride in the contributions to worldwide learning which have been made by their ancestors. Nothing is so destructive to the goal as the false belief that certain peoples are incapable of learning at higher levels. The Great Pyramids and the development of algebra in Persia should be remembered and celebrated.

The fifth is that direction of the effort to achieve educational goals in a nation from outside that nation, by other nations, has been shown down through history to be futile. No matter how well-meaning the other nations might be, imposition from outside tends to be carried out by people who take too much pride in the achievements of their own nation. Such a goal must arise within the countries that wish to achieve it, through the efforts of their own citizens.

Universal Education: a Goal for the 21st Century

EDUCATION INITIATIVES AND POLITICAL STRUCTURES

Before the main thrust of this paper can be fully appreciated, it is necessary to consider and understand that great education initiatives may be made within a wide variety of political structures. For example:

- Within a monarchy, such as that of England, the great universities of Oxford and Cambridge were established. Let us remember that during the first several hundred years of the existence of Oxford University and Cambridge University, the kings of England were true ruling kings, unlike the situation today.
- Within an aristocratic form of government, such as that of ancient Athens, the Socratic Academy was established, and flourished for a thousand years. Here let us remember that Athenian democracy was not continuous, and Athens alternated between periods of democratic rule and periods of aristocratic rule.
- Within a religious government, such as that of the Pope in Rome, the great Catholic universities of the world were established, and still continue today.
- Within a communist government, the great Moscow technical schools were established, bringing educational opportunities to far more people than ever before, in Russia and throughout the former Soviet Union.
- Within a democracy such as that of the United States, twelve years of free education for all citizens was established, together with the systems of state universities and community colleges throughout the fifty states.
- It is also necessary to consider and understand that education in a country usually includes education about the political system of that country. For example:

  Within the democracy of the United States, there is a required secondary school course, today usually called "government," although, when this author took the course, it was called "civics." This course explains the American democratic system of government, which is not easy for a child to understand; and this is why it was presented in the last year of secondary school.
- Within a communist government, the students learn Marxism. Our own university in the United States has many graduate students who come from the People's Republic of China, and on the transcripts of their undergraduate work in China we see references to courses they took on the subject of the building of socialism.

- Within a religious government, schools are established which teach religion, among other subjects. This is true not only in the seminaries, where priests are taught, but even in the elementary schools, where children as young as five will be taught stories from the Bible.
- Within the courses taught at the Socratic Academy, there were discussions of the best form of government, and these discussions were within the context of the governments existing in Athens at the time.

THE DELORS REPORT

We have seen that educational initiatives are possible in any political structure, and that education is usually, in part, about political structure. Keeping these two facts in mind, let us pass to the present era, and ask ourselves what steps have already been taken, in the direction of the goal of universal education. The primary step of this kind is embodied in a report made in 1996 entitled "Learning: The Treasure Within" [1]. This is the report to UNESCO of the International Commission on Education for the Twenty-First Century, which was headed by Jacques Delors. In what follows, we refer to it as the Delors Report.

This International Commission was made up of distinguished members from all areas of the world. It included one member each from China, Japan, Korea, and India; the United States, Mexico, the Caribbean, and South America; two (including the Chairman) from Western Europe, two from Eastern Europe, two from Africa, and one from the Arab world. It is clear, therefore, that all areas of the world were represented.

The highlights of the Delors Report, including the complete text of all its recommendations, are available on the Web [2]. After the report was issued, a Web discussion group was set up at delors-forum@unesco.org "to encourage debate and reflection on the main ideas expressed in [the Delors Report]." Anyone with Web access may subscribe to this by sending a message to majordomo@unesco.org and typing Subscribe delors-forum in the body of the message.

One important consequence of the Delors Report was the Conference on Education for the Twenty-First Century in the Asia-Pacific Region, held in Melbourne, Australia two years later, in 1998. This was presented by the Australian National Commission for UNESCO in association with the Australian National University Centre for UNESCO.

This 1998 conference was based directly on the framework established by the Delors Report. It still maintains a web site [3] containing links to the five major keynote addresses, to the

final summation of the conference, and to an extensive and well thought-out paper on post-conference implementation strategies and initiatives.

The Melbourne Conference, unfortunately, stands in stark contrast to the lack of significant interest in the Delors Report in other parts of the world where most of its recommendations, in our opinion, are needed: South America, the Arab world, Africa, India, and China. The Calendar page of the Delors Report web site [4] lists nothing from any of those regions except for an International Symposium on Curriculum Reform Towards the 21st Century, held in Zhuhai, China, in November and December 1998 [5]. We will now speculate on the causes of this state of affairs and point toward what we feel are meaningful solutions.

PROMOTION OF EDUCATION AND OF DEMOCRACY

The United Nations has many agenda items throughout the world. Among these are the promotion of education and the promotion of democracy. Our thesis here is that these two agenda items are becoming unnecessarily commingled with each other.

We say unnecessarily because the promotion of education does not depend on the simultaneous existence of democracy. As we have seen earlier, education may be vastly improved, and has been vastly improved at many previous times in history, within the context of a democracy, a monarchy, an aristocracy, a religious government, or a communist government.

For the specific purposes of improving education within a country, democracy is not necessary. As we have seen, this is fact and not opinion, no matter how frustrating it might be to those who love democracy. In that group, I include myself. I am from the United States; I am from a democratic country; I love democracy. I also love education, and I believe that education is the solution to many of the problems of the world, including the problems of those countries, which have political systems other than democracy.

The unnecessary promotion of democracy by the Delors Report is the principal barrier to its being taken seriously by the countries, which need it most. Jacques Delors was the President of the European Commission from 1985 to 1995. He is a giant figure on the world political scene and UNESCO was greatly honored to have him give his time and his name to the report. His sincere wish to speak to the entire world, rather than only to the industrialised West, is manifest in the diversity of members of the Commission.

Yet, in our opinion, he did not go far enough. Knowing that education almost always includes education about one's form of government, and knowing that the United Nations promotes democracy wherever it can, he seemingly could not resist the temptation to include, among his recommendations, certain recommendations concerning democracy.

In doing so, he seemingly alienated much of the world. Only in the Asia-Pacific Region was there a serious follow-up to the Delors Report, in the form of a regional conference; and even here, the conference was held in Australia, which is part of the Region only geographically. It belongs in spirit to the same grouping of countries as the United States and Canada. Although there are many democracies in the region, China, which needs the Delors Report more than most, is not a democracy.

This leads to the second part of our thesis, which is that the Delors Report is much more valuable and useful than many countries have been giving it credit for. We urge everyone here to obtain their own copies from UNESCO Publishing and to use it in their plans. In what follows, we will draw extensively on ideas which it introduced.

EDUCATIONAL STATISTICS

In order to start addressing the problem of universal education it is first necessary to determine the scope of the problem. We have to know, for each country, how many of its citizens are educated, how many have had three years of school, how many have had six, and so on. We need, in short, a good collection of educational statistics on a worldwide basis. In this we are hindered by the fact that most collections of educational statistics are done only within the usual groupings of countries.

In my own country, for example, there is a National Centre for Educational Statistics. The purpose of this Centre is to collect comparative data on education for several countries, so that we in the United States can tell if we are lagging behind other countries in certain important indicators. Despite our image as a great educational model, this sometimes does happen. For example, the last time that records were collected, we were devoting 12.9% of all our government spending to educational spending. This is not the highest; for example, Hungary was devoting 17.4%, and Canada, Norway, and Switzerland were all devoting more, as a percentage of total government spending, than we were.

The problem with the data collection made by the Centre is that it is only for the United States, Canada, Australia, New Zealand, Japan, Western Europe, and some of Eastern Europe. This is fine for our purposes, but it leaves the other countries of the world without basic knowledge that they need for the purposes of justifying their own further educational initiatives. In particular, countries can easily ignore comparisons with other countries much richer than they are, but it is harder to ignore comparisons with other countries which share their geography, religious majority, and economic situation.

I hope that the Latin American countries, the Islamic countries, the African countries, and the Asian countries have formed, or will form, centres for educational statistics. Each country should be able to see how well it is doing by comparison to others in its group. In forming policy for such centres, and determining what data should be collected, our Centre is indeed a good model. I urge everyone concerned with this issue to study our Centre's Web site, particularly the page [6] which contains links to the 45 indicators which the Centre uses. These fall into six categories:

- participation and student flows;
- achievement and attainment;
- education and labour market destinations;
- education institutions;
- contextual factors;
- societal support for education.

Among the data to be collected, there should be included not only absolute numbers, but the amount of progress each country has made since the last time that data was collected.

MAKING THE INITIAL DECISION

The Delors report ([1], Chapter 9) recommends that "a quarter of development aid [received by a country] should be devoted to the funding of education." In justifying the initial decision made by a specific country to spend far more on education than that country has in the past, we need to look at the issue of responsibility that comes with development aid.

Many countries are receiving development aid these days. Computers are coming in; airports are being expanded; new airports are being built, particularly at a distance from the capital; new highways are being constructed. It is too easy for people to use the new computers, airports, and highways without thinking about the responsibility that goes with it. Twenty-one

years from now, when newly born citizens become adults, some of those adults will have to know how to maintain the computers, airports, and highways. Otherwise there is a continuing dependence on other parts of the world, which is destructive to a necessary sense of national pride.

It is necessary not only that governments fund education at higher levels than before, but that these higher levels are made a permanent part of the government budget. Contributions from industry to the school budget should not be relied on for essentials, although they should be strongly encouraged. I remember vividly my first school visit to a factory which made bicycles. I had never seen the inside of a factory before, and that factory visit gave me a much better understanding of how the world works.

The new educational initiatives should always be viewed as a supplement to existing education, rather than as a replacement for it. We must never repeat the mistakes of the colonial doctors who, in their efforts to bring European medicine to Africa, sought at the same time to suppress African medicine. In many parts of Africa, there are plants which do not grow in Europe, and some of these plants have medicinal properties which were therefore unknown to European doctors. This knowledge was disparaged by the colonial masters, and those who possessed the knowledge were referred to as "witch doctors," a humiliating and unnecessary insult that must never be repeated.

Who should decide what the schools should teach -- the curriculum, in other words? Should it be teachers, local administrators, or national administrators? Here Europe and the United States are themselves divided, and there is no consensus. The United States has always left this up to local administrators with strong input from teachers and parents. Europe has not always done this, and France, in particular, has had a tradition of curriculum control at the national level.

There are advantages to both systems. Under the French system, a family can always move from one city to another with the knowledge that their children will be studying exactly the same subjects in the same year, in their new school as in their old school. The curriculum is exactly the same at the two schools, because it is determined nationally. Under the American system, it has been easier for teachers to introduce computer courses before national opinion was ready for this. My wife was teaching secondary school mathematics thirty years ago, and one of her students had learned the Fortran programming language. She proposed a Fortran

course and taught it for several years, a long time before such courses were common in other schools. It is fair to say that both systems have their uses and neither one should be totally disparaged.

Great care should be taken in choosing those who will oversee the specifics of school budgets. I have seen too many times what happens when the control of this falls into the hands of mean-spirited people.

Especially to be avoided is the belief that certain people should not be educated. Who such people are varies from one country to another. They are untouchables in some, although not all, parts of India; women in some, although not all, parts of the Islamic world; and they have, historically, been dark-skinned people in some, although not all, parts of the United States. In over half the world, however, they are poor people, who cannot afford education.

Let us always remember that one of the great strengths of the United States is that education is free. No one has to pay to go to school, anywhere in the United States, and the result is that the entire citizenry is educated and can contribute to the strength of our economy. It is a custom that must, and will, I believe, be worldwide by the end of the twenty-first century.

Many educated people are uncomfortable with the idea that the uneducated should become educated. This is natural and should not be made too much of. People are uncomfortable with many things they must do. People who insist too strongly that they will not do things they are uncomfortable with must be told, gently but firmly, that they must do them. Otherwise, there is built up an enmity toward education in the society, with an accompanying potential for revolution, but also for insufficient effects of education on the whole society.

PRESCHOOLS

When I was growing up, preschools were called "nursery schools." By either name, they are schools for those too young to attend kindergarten. Preschools are often misunderstood, and associated with mothers in the United States who have jobs and must leave their children somewhere. That also exists in the United States, but it is called daycare, not preschool. When my grandson was two years old, he was in preschool for just three hours, two days a week. Now he is four years old, and he attends for just four hours, three days a week.

The importance of preschool should not be minimised. My sister is a university teacher, and she was once a consultant in Togo, where preschool availability was, at the time, being greatly expanded. Talking with her, I was wondering why Togo was considering preschool expansion more important than secondary school expansion, which was also greatly needed. Many years later, after observing my grandchildren's mental development, I can see Togo's point. Children become more intelligent throughout their whole lives if they receive the mental stimulation of preschool when they are very small.

In each of my grandchildren's preschool classes, there are two teachers. This is a technique that also works well, sometimes, at higher school levels, and must not be made impossible by administrative rulings. Also, each parent is encouraged to participate, even if only in a very small way, such as bringing paper plates or crayons. This fosters an involvement of the parents with the schools that should continue and be encouraged all through elementary and secondary school.

PRIMARY EDUCATION

The most important educational initiative for today, for the year 2000, is in primary education. Everyone in a society should learn reading, writing, and arithmetic. For years the joke in the United States has been that small children, who do not know how to spell yet, will refer to reading, writing, and arithmetic as Readin, Ritin, and Rithmetic -- the Three R's. Sometimes the joke is augmented by what we call the Fourth R, for Responsibility.

One of the side benefits of universal primary education is the opportunity to teach all children personal responsibility. If they steal or fight, they will be immediately punished. In too many societies, the poor are perceived as being thieves and brawlers; indeed, this is one argument that occasionally arises against educating them: they will merely become educated thieves and brawlers! Educating them in fact does the opposite, if the teachers combine the three R's with the fourth R.

Punishment, on the other hand, must not itself involve violence. The children are being taught not to use violence against each other, and the teachers must not use violence against the children, either. After my mother retired from teaching, she started a movement in opposition to the common practice of hitting children for their misdeeds. This practice has now been banned in England and in most of the United States. Small children today are placed in "time

out," which means that they must sit apart from the others until they agree not to behave badly.

THE MIDDLE SCHOOLS

In the United States, middle schools, also called junior high schools, are for grades 6 through 8 or 7 through 9 -- the practice varies from one state to another, and from one city to another. It is sometimes here, and sometimes as early as the elementary school, that tracking often begins.

Tracking is a bad policy idea that arose many years ago in the United States and Europe. Under tracking, the students are divided into tracks, or groups, according to their perceived intelligence. Those in the higher tracks were educated faster, and better, than those in the lower tracks. As the students progressed into secondary school, the knowledge and intelligence gap became wider.

Tracking was justified by the fact that adults need a wide variety of intelligence levels. Doctors and lawyers need more intelligence than most people. The argument was that grouping the more intelligent children into a faster track would free the teacher from the necessity of taking time to teach those of lesser intelligence.

Unfortunately, the decision as to which track to put a child in was too often based on the intelligence and achievement level of the child's parents, rather than the intelligence of the child. Also, some children appear to show lower intelligence during one particular year because of emotional problems, unusual pressures, or the like. Especially unfortunate was the lack of any provision for a student in a lower track, after intense "catching up" efforts, to be readmitted to a higher track. This is to be avoided.

A positive development in middle school is "learning how to learn." By the end of middle school, students must be able to read a book and learn from it without a teacher. This is a necessary skill because new inventions and discoveries occur throughout a person's life, and there is often the necessity of learning about them by reading. The amount of time necessary for learning how to learn must not be underestimated.

SECONDARY SCHOOLS

The secondary school, also known as the high school, extends from the end of middle school through the twelfth grade. In some districts there is no middle school; there is only elementary school (K-8) and high school (9-12), as in the case of my own education.

In the United States, high school is the first level at which there are significant dropouts, meaning that students stop attending school in order to work or, in some cases, to raise their children. This is perceived by American high school teachers and administrators as a serious problem, and endless hours of planning are devoted to combating it.

Yet another example of what in our opinion is the inappropriate emphasis on North American and European issues by the Delors Report is its approach to the dropout problem. It correctly, I believe, identifies the real problem as arising from educational policies which prevent the dropout from returning to school at a later time. "The key principle," it recommends ([1], Chapter 6), "is to arrange for a variety of individual paths through schooling, without ever closing the door on the possibility of a subsequent return to the education system."

In fact, dropouts are not only a problem to students; they are also a problem to administrators who receive more money if they are in charge of more students (who do not drop out). However, we do not expect the dropout problem to arise in countries where access to secondary education by most children is very new. Such children, we believe, will be grateful for their opportunity to be educated and will not drop out in the same numbers that they do in the United States.

Besides the usual array of subjects, the secondary schools should endeavor to impart some more general knowledge. By the end of secondary school, students should, for example, have reasonable replies to the question, "Why, in your opinion, is the world changing so fast?"

We have specific concerns about two of the subjects customarily taught in high school. One is education about government. The students in every country should be taught about the governmental system that exists in that country. At the same time, they should be given a survey of governmental systems in other countries, with some understanding of how they work and why they work.

Our other concerns have to do with computers and what is taught about them, and by them. The first severe problem here has to do with undue emphasis on English. Certainly a knowledge of English is necessary in order to understand certain advanced computing material, but all too often computer people treat English as the only language in which computing can be done.

I call on the educational authorities of every country to insure that every student who is being taught computing in English is also taught computing in the national language of that country. Students should be using computers in Arabic or Thai or French or Chinese, depending on what is spoken in that country. I also call on educational authorities first to learn, and then to teach, that there is no one universal computer standard, no matter how many people say that Windows is the only possible operating system. I myself use a Macintosh, but there are many others, and there should continue to be more in the future, including those written in non-English-speaking countries. This has already happened in Japan.

Other bad educational ideas about computing include the attempt to have computers replace teachers, so that fewer teachers and therefore less money will be required, as well as teaching only specific systems with no attention paid to the idea of learning how to learn about computers and computer systems.

EDUCATION ABOUT WORK

Before we go on to discuss university and college education, we should also mention another important aspect of education that is often overlooked. In the United States, the craft masters, such as master electricians, master carpenters, and master plumbers, are expected to pass written examinations in order to be certified. They are encouraged to take courses, requiring considerable study over several months, in order to be able to pass these examinations. It is easy to ignore this aspect of education in the United States if one talks only to people in colleges and universities.

COLLEGES AND UNIVERSITIES

The terms "college" and "university" have become almost interchangeable in the United States, despite their initial distinction which arose from the colleges at Oxford and at Cambridge. Despite the large number of colleges, which collectively make up Oxford University and Cambridge University, the percentage of British people educated there

remains quite small. Today Great Britain has a very large number of colleges, but it is still interesting (and dismaying) to hear people in other countries speak admiringly of "the Oxbridge system" as if the education of a tiny minority were good in itself.

All the considerations of learning how to use computers in one's own native language, discussed above under secondary schools, apply with even more force in college, where far more people are taught about computers than they are in the high schools.

Another important aspect of college education is that it be an opportunity for students to travel to another country. In recent years, the United States has become known as a country to which college students from all over the world are attracted. This aspect of American colleges should be imitated by countries in other regional groupings, which can give instruction in their own languages. Courses given in Spanish can attract students throughout Latin America; courses given in Arabic can attract students throughout the Arab world; and so on. Russia was well known for this before the breakup of the Soviet Union.

Concerning college education, the Delors Report notes: "The major danger is that of a gulf opening up between a minority of people who are capable of finding their way successfully about this new world that is coming into being and the majority who feel that they are at the mercy of events and have no say in the future of society..." ([1], Chapter 1). This remains true in all political systems. In particular, it is inaccurate to describe the majority in a monarchy as "hav[ing] no say in the future of society." This is true only when the monarch ignores the majority, as was the case with King George III of England.

Graduate education, and in general all college education beyond the first four years, should also be encouraged. It should not be necessary for students to travel to the United States or Europe to go to graduate school, or to do research.

ADULT EDUCATION

As the world changes, adults need to be re-educated, and adult education, often called lifelong learning, is an important component of education in general. There are several important facets to this.

First there is adult education in the primary subjects. Adults who did not have the opportunity to learn reading, writing, and arithmetic when they were children should be given the opportunity to learn these as adults.

Then there is teacher re-education. It might seem that teachers are among those least in need of further education, when in fact they are among the most. It is destructive of general educational goals to find teachers teaching obsolete material, because this is all they know. In the area where I live, all secondary school teachers are required to take two courses every five years, as a condition of their continued employment.

Obsolescence is an essential feature of modern societies, and the pace of change is accelerating, rather than slowing down. Another consequence of this is the necessity for re-education of workers that is paid for by their places of employment. This is seen most obviously in computer classes, but in fact is more universal than this. Many such classes are given by colleges and universities, and others by private schools organised for this purpose.

Recently there has arisen the term "distance education," meaning "education at a distance [from the teacher]" and referring to education by television and over the Internet. This is primarily adult education, but can be useful at other levels as well.

A FINAL ADMONITION

I urge the leaders of all countries to be prepared for the unusual amount of knowledge with which they will have to cope in the world of the future. A much greater number of citizens will have this knowledge than ever before. Listen and take heed. Your countries will be the better for it.

REFERENCES

- Delors, J., et al., (1996). *Learning: The Treasure Within*, UNESCO Publishing, Paris.
- http://www.unesco.org/delors/task_force.html
- http://www.sofweb.vic.edu.au/news/unesconf
- http://www.unesco.org/delors/Calendar.html
- http://www.unesco.org/delors/chinaseminarlink.html
- http://nces.ed.gov/pubs/eiip

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