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PERMANENT EDUCATION, AN AGENT OF CHANGE IN THE PRESENT EDUCATION SYSTEM

by

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"A civilisation survives only so long as it makes adequate response to the challenges of its time."

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Section I - General starting hypothesis

This hypothesis may be stated as follows: the provision of opportunities and instruments for an education appropriate to individuals who have concluded their formal education constitutes a basic factor determining the fundamental reform of the whole present education system

Up to now adult education has in fact been an extension of formal schooling, each branch being grafted on to some kind of school education. For the purpose of adult education, wide recourse has been had to the youth education machinery and staff. In this respect, formal schooling has been taken more or less deliberately as a model.

Adult education, moreover, is far from constituting an integral whole. Both at public and private level, it has been organised in unco-ordinated abundance, to serve society or for lucrative ends, within an ideological framework or otherwise, for utilitarian or purely cultural purposes, with the most diverse objectives: professional, cultural, political, trade-unionist, family, administrative, social or military, by way of further education, for the study of languages or in the form of refresher courses and has been provided by all kinds of establishments including universities. This plethera of objectives goes hand in hand with a no less great variety of method: day courses, evening classes, correspondence courses, study groups, weekend courses, round tables, radio and TV courses, courses on records - to mention only the most wide-spread methods.

But today society is beginning to awaken to the importance of this phenomenon in the education system and to the need to rationalise, organise, institutionalise, to promote adult education and control an anarchical proliferation in which there are nevertheless serious gaps and shortcomings in both quality and quantity. In this connection A.S.M. Hely (1) draws attention, inter alia, to two international conferences called by UNESCO: Elsinore (Denmark, 1949) and Montreal (Canada, 1960). There are also the many endeavours made by the Council of

^{(1) &}quot;New trends in adult education", UNESCO, Paris, 1963.

Europe's Council for Cultural Co-operation and the surveys and symposia of OECD, which has extended its activities in the field of scientific, technical and vocational training to educational planning and expressly included adult education. The International Conference on the World Education Crisis held in Williamsburg (USA, September 1967) was concerned with the same problem, which is analysed by Philip H. Coombs in his excellent survey (1). The recent setting up by OECD of the Centre for Educational Innovation and Research with the financial support of the Ford Foundation is significant of the new approach to the education problem. The project "Education in the year 2000" of the European Cultural Foundation shows the same trend, and "permanent" education occupies a good place in the programme. I am merely citing here a few characteristic international events, but do not claim that they are exhaustive. Mention must also be made of the very many initiatives taken at national level.

But our general starting hypothesis goes beyond a realisation of the indivisibility of adult education and the importance of the problem during the present phase of the evolution of society. The hypothesis indeed has the following corollary: the organisation of adult education, its objectives, methods, atmosphere, functional requirements will demand radical changes in the present formal education system (including the university), traditional school structures being gradually transformed to their image.

This corollary is the very reverse of the process which has so far actually taken place (influence of the schools on adult education). This reversal will be both the necessary consequence and the essential cause of the transformation of contemporary societies; be they highly industrialised or in course of development. And this, in its turn, will cause the transformation of modern man's life and its meaning. It must, if humanity is to overcome the crisis engendered by its scientific and technical progress, which at the same time enhances enormously its power over matter, space and time.

It is certainly not our intention to break down open doors. We are perfectly aware that recent reports, in particular reports prepared at the request of the Council for Cultural Co-operation, are along the same lines, especially those of Rector Capelle, MM. Tietgens and Rasmussen and of Br. Boeglen - to mention only

^{(1) &}quot;La crise mondiale de l'éducation", Paris (PUF) 1968.

those which are most explicit in this respect. In addition, there are the "twenty-two points" of December 1967, the position adopted by the Committee for General and Technical Education and the conclusions of the Marly-le-Roi Course (May - June 1967) which state:

In conclusion, the delegates expressed the conviction that the education of adults is at a turning point of its history. Firstly, it is taking its place in the process of permanent education. From this point of view, it seeks to establish its continuity with the earlier stages of education given in the schools. The corollary of this continuity is that school education should no longer be considered, at any level, as 'terminal', but that it should prepare its pupils to pursue their education and training throughout their lives by recourse to the opportunities of adult education.

Secondly, adult education, which was at one time a means of rectifying the injustice done to the educationally under-privileged and later sought to assist in man's adaptation to the rapid changes of industrial society, now aims at making man capable of mastering these changes and of influencing their direction in accordance with his own essential demands.

The qualities it seeks to develop among individual students are lucidity, initiative and creative ability, and it expects that they, for their part, should not only bring their contribution to progress of every kind, but should also be capable of criticising certain tendencies in the modern world and, if necessary, opposing or redirecting them.

The great aim of adult education is therefore to be recognised as an important dynamic factor in the socio-cultural and socio-vocational development of individuals, organised groups and communities."

Another concise and pithy study is that of Torsten Hüsen (1), who states at the outset: "My thesis is that educational planning in modern society must take lifelong learning as a basic assumption. Before I proceed to develop this thesis and analyse its consequences for the school system and for in-plant training programmes, I shall outline the conventional view of formal education and its relation to the vocational career." The idea

^{(1) &}quot;Lifelong learning in the 'educative society'", International Review of Applied Psychology, Vol. 17, No. 2, pp. 87 to 99

of a reversal of trend is at least implicit in this article and the consequences are drawn with great demonstrative power: the impact of adult education's particular needs on the traditional school system is clearly revealed, and we are given an overall view of a lifelong permanent education. My contribution will consist mainly in showing that these implications affect the whole socio-cultural system, that the very concept of school is put in question and that we are not merely concerned with school reform.

Hention should be made of a book on adult education which has great merit, although it dates back to 1955: H. Kempfer's study. It is confined to the United States, but is already based on the concept of lifelong education and draws some important conclusions which anticipate current views (1). This is not surprising, since in the development of its structures and its achievements in the sphere of production - with the consequent requirements, in particular the distribution of the working population - American society is ahead of Western Europe by some ten to fifteen years (2). This does not mean that the two societies would have the same systems of government or the same culture ...

While complying with this trend, my general hypothesis endeavours to press the arguments on the phenomenon of permanent education right up to their extreme conclusions. Although it is neither possible nor realistic to make precise forecasts as to time, this manner of reasoning leads necessarily to a long-term view (covering 15 to 30 years, i.e. a view extending to the year 2000). In regard to choice of aims, such long-term perspectives leave human institutions far more freedom than short-term forecasts, already contained; as it were, in the present and on which man has but little influence. On the other hand, long-term predictions conceived as probabilities, with alternatives providing for differences within the sphere of the possible, call for an assessment of values permitting a choice to be made from among this range of probabilities. For example, as it is possible to make a long-term forecast of average national product, lying between a highly probable minimum and maximum, and a corresponding working population structure, an appropriate education policy can direct such structures - by utilising the material means offered by the growth of the overall product -

⁽¹⁾ The very first trend in this direction is to be found in the excellent "Final report of the Adult Education Committee of the Hinistry of Reconstruction" published in Great Britain as far back as 1919.

⁽²⁾ Cf. H. Kahn et Anth. J. Wiener: "L'an 2000" (Robert Laffont)

Paris, 1968, p. 205, Table V. Sweden will attain in 1976 the
1965 national per capita product of the United States. In
the case of Britain, the difference is not 11 years but 19 years.

towards democracy or technocracy, towards a "secured" and conditioned man (in a balanced, untroubled social context) or, on the contrary, towards a free man who accepts risks and ventures (in a social system under which he is himself thrown back into the field). By means of such long-term forecasting permanent education potentially puts our kind of society and above all its education system in question.

The current report is devoted to defining as closely as possible the complex effects of the factor which permanent education represents in a long-term perspective.

Section II - Theoretical context: the education system and the transmission of knowledge

The general theoretical context pertains to sociology.

The social nature of the education system can be defined as follows:

By education system are meant all the procedures and methods (with their instrumental apparatus) whereby a global society gives its members organised and controlled education in the various fields of human activity for the purpose of the maintenance (functional and technical aspect) and acceptance (ethical aspect) of the social structures and the values which justify them.

This definition applies naturally to societies the maintenance of whose structures calls for profound and complex changes and adaptations with a view to the better realisation of the values.

For two kinds of social system are known to history:

- societies the maintenance of whose "stability" requires fundamental and continual efforts; they are the socialled "traditional" societies, of which the tribal or feudal society is an example;
- the "changing societies; these comprise all the societies which have undergone an industrial revolution.

To be sure, all societies change in course of time, but some societies are said to be "changing" societies when the change is felt by each generation. The "basic personalities" of the two kinds of society, i.e. the mentalities, attitudes, impulses and behaviour common to all men, constitute psychological integrations which naturally vary greatly in the two cases. The main feature of any social system is nevertheless its aim to maintain its global structures. This is clearly evident in the case of the so-called consumer society, which is undergoing rapid changes but profits from these very changes to maintain its basic structures.

It might be said that in any global society the education system is the internal, conscious and organised learning process.

Education consist essentially in the transmission of knowledge in the broad sense of the term. Attitudes, practices, means of communication (for example, the language, writing) are transmitted.

But not all society's knowledge is integrated in the education system, whose criteria are determined by its own objective: to ensure the maintenance and acceptance of social structures and values. Each education system achieves this more or less satisfactorily, but never for all men or perfectly; there are failures and disparities.

Knowledge is within the province of the education system:

- if it has progressed socially from the empirical level to the technical level and is concerned with everyday activities (in which case its institutionalisation has been achieved);
- or if this knowledge, being in the nature of a value, is deemed sufficiently important to the maintenance of the social structures (in which case we are concerned with the cultural and political aspects).

The traditional education system has been constructed by degrees in societies which had three main traits:

- the striving for stability by reciprocal adaptation of the human and natural environments (biosocial ecological system) and by the maintenance of the social order regarded as natural;
- the inequality of men institutionalised in more or less hallowed social hierarchies (in which ethnic differences imply higher or lower ranks in the social hierarchy, in which each "authority" is absolute in its specific sphere and the improvement of social relations is of a paternalist nature);
- fixed techniques embodying only improvements produced by empirical research which respects the "rules of art" in each sphere.

Traditional societies are predominantly agrarian. Theirs is the world of Epimetheus.

But since the industrial revolution these societies have become "changing societies". Their salient features are industry, urban life, the development of services. They are losing their traditional rural and artisan character. Yet, however rapid their development, they remain caught up in the values and practices - sometimes dating back a thousand years - from which they emanate historically. And in a latent or

implicit way something remains of stability as an ideal and a natural safeguard, something of the hierarchical inequalities with a touch of the sacred and, lastly, something of the striving for security in the rigidity of technical masteries. The "changing societies" have nevertheless fashioned and introduced new values:

- the improvement in the human lot and society, the struggle for an ever more complete domination of nature whose "order" is no longer regarded as sacrosanct (this is the world of Prometheus);
- the basic equality of all men (the "rights of man"),
 the rejection of discriminations formerly "natural" on grounds of sex and race, the right to social participation
 according to everyone's needs, interests and aspirations,
 social hierarchies based solely on functional requirements;
- the systematic organisation of scientific and technical innovation (science is no longer concerned solely with knowledge of the world and the betterment of the individual, but also with the transformation of the world and of man; Prometheus once more).

Yet the education system - particularly that of the West - was shaped slowly in the traditional universe. The society of Prometheus adapted it to its own specific values (progress, equality, scientific and technical innovation) but without eradicating the old values which are still present in the social system (stability, recognised that the present education system embodies organic factors of resistance to the need to meet the requirements of "changing society".

To be sure, the system has changed radically, but far more in its dimensions and by the extension of its content than structurally or through the abandonment of its traditional content.

Thus a certain measure of democratisation of education has been achieved (compulsory schooling, end of ruling circles' monopoly of secondary and higher education), but the structures of the education system impede the elimination of the influence exerted on education by the social hierarchy. To be sure, education has been adjusted to the transmission of the ever-changing scientific and technical knowledge, but the disparity between the actual state of science and technology and school programmes is considerable,

without taking into account the continuing myth of knowledge definitely acquired, of an unchanged foundation of knowledge and of the "edifice of science" built with stones added one by one, although modern science has its cemetery of obsolete or abandoned theories and knowledge ... Education structures are, admittedly, undergoing change, but more through addition than by substitution. In this sense, the idea of the primacy of the "humanities" as compared with the "new" branches of secondary education, regarded, at least latently, as a "second choice", is a very good illustration. The same applies to the rigid system of "lawful" university diplomas, alongside of which "scientific" diplomas are being introduced whose social value is still largely questioned. And what about the discrimination shown against diplomas worked for at evening classes or by means of correspondence courses?

Some traditional structures of the education system remain firmly in place. Firstly, there is the "class" composed of pupils of a strictly specified age group; these "classes" are. in principle, of a homogeneous standard in all schools of the same level and have a general syllabus all the subjects of which pupils must master in one year to be able to proceed to another "class". The "class" with its cultural atmosphere and its teaching methods survives the introduction of the most "active" methods, which are powerless to cause its break-up. Moreover, the minimum period necessary for accomplishing a given schooling stage has been institutionalised in liaison with the "class", and the yearly programme cannot be divided up in any other way. Why should a pupil not be in the fourth form for mathematics and the first form for the mother-tongue? Why can certificates issued for studies accomplished in the normal way not be far more diversified?

When carrying out research on any education problem, it is necessary to bear in mind the real nature of the education system whose functional purpose is to preserve the fundamental social structures even if their underlying culture entails the recognition of change.

To adapt does therefore not mean "to change" but, on the contrary, to do what is necessary to maintain.

Section III - Future prospects of the education system in the light of the evolution of the most advanced societies

In industrialised societies a normal human life is even today divided into three main phases despite the changes which are taking place with unprecedented speed:

- the schooling phase (more and more often extended as far as higher education), when man, in his youth, must prove periodically that he has memorised, understood and assimilated a certain store of knowledge and techniques which will serve him as a basis for his future activities;
- the working phase, when man puts his knowledge and techniques to account to succeed in his own career and serve society functionally. As a rule, the schooling phase is followed by a period of relaxation when man ceases to seek to increase his knowledge in order to devote his energies to adapting himself to his occupation and also to indulge in recreational pursuits and cultural amenities (for, in general, an adult does not have pleasant memories of his schooldays); after the age of 40, a phase of "advancement" or "maturity" sets in when many men feel a renewed need to learn and to enhance their knowledge;
- the retirment phase, usually beginning at 65, when man ceases all normal professional activity and lives a life of more or less organised leisure whose needs the social environment meets imperfectly rather than adequately.

However, this classical pattern of the three phases of life is changing extremely rapidly at the same time as the principles of the education system underlying it.

What is causing this change?

Scientific and technical knowledge is increasing and undergoing renewal so speedily that the "foundation" supplied by the school (including the university) soon becomes insufficient and imperfect for everyone. It is immediately on leaving school that the need for new knowledge arises. Man will therefore have to begin studying anew on many occasions throughout life if he wishes to "keep abreast" and "in step" with progress. But it will be necessary for the instruments of knowledge to be available and for man to find an appropriate context in which to use them since, if left to himself, he will meet insurmountable obstacles and, in addition, will have difficulty in securing "recognition" for his efforts. Education will therefore no longer be confined to, or guaranteed by, an initial specialised phase of life.

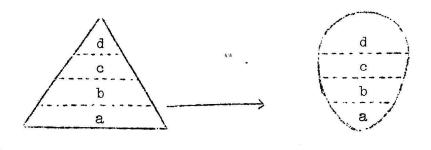
But it is by no means merely a question of renewing one's knowledge fundamentally within the context of one's occupation, for this occupation itself changes radically: many men are already compelled, and will be increasingly compelled in the future, to change their "trade" during their working life, and many are already seeking to do so now in order to secure a promotion, made possible, precisely, by the introduction or expansion of a large variety of jobs requiring ever more qualified manpower.

This social impulse is well known and need not be explained here. The more technically advanced a country is, the more the structure of its active population fluctuates and the greater is its social and geographical mobility. Torsten Hüsen has laid down a sound definition of the nature of this change in the hierarchy of qualifications.

Let us consider four occupational categories:

- (a) unskilled workers;
- (b) skilled workers (mainly manual);
- (c) administrative staff, cadres, technicians without university education;
- (d) university educated executive and technical staff.

If, to indicate the importance of each category, we portray the original situation by means of a pyramidal outline, we will see that this outline progressively assumes the shape of an egg with the point at the bottom (1).



⁽¹⁾ T. Hüsen. "Lifelong learning in the 'educative society", International Review of Applied Psychology, Vol. 17, No. 2.

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Recent years have witnessed an increase in the number of workers and an improvement in their status. Generally speaking, administrative machinery and services cover the greater part of the working population. But Ihermitte (estimates for the new French plan) shows that at a subsequent stage the number of employees will diminish, for they will be replaced more and more by highly-qualified technicians using highly sophisticated mechanical and electronic tools. This does not mean that other tertiary activities, and in particular activities pertaining to culture and education, will not continue to expand...

As for the primary sector (essentially agriculture and stoerbreeding) it will continue to contract rapidly, although its production will continue to rise. For example, the two last general censuses in Belgium produced the following figures:

1947: approximately 12%

1961: approximately 8%

In fourteen years, the agricultural sector has thus lost one-third of its labour force. Yet, in the last century, the majority of Belgians worked in the primary sector ... Admittedly, in a few years' time, it will be impossible for the percentage of agricultural workers in the working population to decrease still further after dropping to a negligeable level (3% or 4%?).

In practice, these developments will lead to more and more individual changes in occupation, for the majority of citizens surely already have occupations different from those of their fathers. In the light of a survey carried out in Sweden Neymark found that only 6% of young people from urban circles and 11% of young people from rural circles pursue the same occupation as their fathers. Moreover, 42% of young men covered by a sample survey in Sweden had changed their occupation between the ages of 20 and 28, and only one-third had remained in their original occupation (taken up at 20) (1). It is unnecessary to dwell on the requirements in new qualifications which such changes of the technological developments undergone by a person's old occupation.

Attention must also be drawn to the decisive impact exerted by new thought-transmission methods. The means of transmission affects the manner in which decisions are prepared, taken, executed and controlled and determines the structures of fundamental action in all spheres of society, particularly in the political and economic fields.

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⁽¹⁾ See the article by Torsten Husen referred to above.

In this respect, Western civilisation has undergone changes of a revolutionary character. Writing by means of the alphabet was the first, followed by the invention of the printing press in the XVth century. Around 1900, the telephone, telegraph and typewriter were the third. Today, TV, transistors and, above all, computers are overturning all the decision—making machinery. Each time, new occupations appear in this context: the scribe, the printer-typographer, the secretary shorthand-typist, the computer programmer. Each time the inter-dependence of men underwent a change in its organisation, calling for new qualifications and new hierarchical and relational machinery.

Furthermore, mass communication media - from the popular daily and weekly press and the cinema, appealing to the main man-in-the-street, to radio and television which introduce pictures, sounds and words into the very family circle - have expanded to such an extent as to overturn society's whole culture and man's whole psychology. Above all, these media supply everyone, and especially youth, with an undreamed-of profusion of news and topical information. Young people receive nore information outside school than in school, but they are only taught empirically by the family, casually at school and through their own experience, to make use of this information. to criticise it and to make an intelligent and efficient selection from it. The minds of the young nevertheless contain a wealth of information and are open to the world to an extent hitherto unknown, although this "culture" lacks coherence and remains, as it were, in its raw state.

All these considerations explain therefore not only the growth in the "educational" needs of adults but also the school system's inadequacy in the new context and the speedy changes undergone by the very content of knowledge. It is thus a new society which is taking shape before our eyes and, consequently, also a new education system, notwithstanding the resistance from the old system still weighed down with tradition.

The following results of these complex developments are already clearly discernible:

- The schooling of youth will be less and less a matter of acquiring knowledge - soon outdated - and information - provided more comprehensively elsewhere - but will be nore and more devoted to the acquisition of methods of thought, "adaptive" attitudes, critical reactions and disciplines which "teach how to learn". Thus the time devoted by youth during the day, week or year to school activities proper will be more and more limited. It is

during their leisure time that young people will learn to absorb information and culture and prepare themselves for an adult life characterised by the extension of leisure time. The school could save much time by refraining from imparting information, since the mass communication media will be qualified to discharge the task systematically in the context of the family and the sub-culture of the young. As it will be education's task to shape an "adaptable" man rather than to produce a "finished" man in a single process, it will be impossible to teach the requisite flexibility of reaction except through appropriate activities entailing participation and responsibility; this cannot be learned through lectures or from books.

Thus the schooling period, hitherto passive, will become active and involve personal responsibility and leisure time for the absorption of culture. It will become evident that the traditional status of young people, particularly at school, plays a decisive role in prolonging their infantile state; many signs show already today that this is so.

The occupational period will also be characterised by leisure time for the absorption of culture, but this leisure time will have to be more and more often devoted to occupational adjustment and to keeping abreast of or acquiring knowledge to this end. This will be the "permanent education" system and the requisite institutions will have to be set up or developed. Another part of leisure time will have to be devoted to community "participation" rendered essential by the complexity of political, economic and social life; failing such participation, the structures run the risk of turning into oligarchies which would transform the abdication of man into his subjection. Man will therefore have to be educated to this end from an early age (active exercise of responsibilities) and during his adult life.

Retirement at 65 years of ago, in its present form, will be a thing of the past, since the average prolongation of life, the preservation of health and the social need to accomplish tertiary tasks - which require little physical effort - render the abandonment of all activity useful to society absurd, although this does not mean that professional activity proper nust continue exactly as before. Moreover, while on this subject, why should the age of professional retirement remain necessarily the same for most categories of workers and for all persons in these categories?

In actual fact, all these changes imply that during the whole of his life, from the age of reason onwards, man will have responsible activities, will have to devote himself to study and will have leisure time for the absorption of culture. This new social system which might be called the system of the "three activity sectors" implies permanent education.

The structures, objectives and nethods of the traditional school will be wholly transformed. It will give way to "something else". The new education system will, in particular, provide for study levels which will henceforth be independent of pupils' age. Similarly, the manner of acquiring knowledge or qualifications will be independent of all statutory schooling periods or former conditions of study, although all study, naturally, implies the possession of adequate starting knowledge; any gaps in such knowledge will have to be filled. Thus "schooling" will no longer be a statutorily defined and specified period in man's life and will no longer have to be accomplished in a specialised context called school. Under forms already foreseen but not yet specified, this education covering the whole of man's life will have eliminated the concept of "class" with the aid of techniques for the transmission of knowledge and recourse to the mass communication network. The role of the teachers will change radically: "teachers" and "lecturers" will become "counsellors", "advisers", "tutors", "programmers".

The present dichotomy "school" and "post-school education" the latter grafted on to the former - will be replaced
permanently by a double structure: the "Fermanent education" sector
and the "Information-Culture" sector.

It is in this sense that Permanent education with its functional requirements and its own development is already beginning to be an agent of radical change in the whole present education system.

These revoluntionary changes cannot originate in the present education systems which would have difficulty in evolving spontaneously. Like all systems they can naturally be improved and made to raise their output even to a startling extent, but only within the logic of their own structures. In any old system, there is a force of inertia inherent in its practices, values and technical machinery. It would be unfair to criticise it, since the "school" system has rendered, and will continue to render for some time, through force of circumstances, services which remain linked to the current progress of the most advanced civilisation. But the impulsion for change can only come from

outside where, beside the current education system, a new system for the dissemination of knowledge will be devised, a "non-formal" system in the sense of "non-school". Gradually the system will become able to take over from the old system, which it will gradually overwhelm. One day, the school as we know it with its system of "classes" will be a thing of the past, like the trade guilds as a work context and the "post relays" as travel stages...

Developing countries - particularly since they are just starting their efforts - are far less prisoners of the classical education system. In planning their educational requirements, they can save themselves the trouble of building up a costly education system which - as we have seen - will only be transitory; they can, on the contrary, set up institutions of a genuinely new kind, responsible for imparting knowledge for the teaching of techniques to society (1).

Reversing the situation, developing countries would be, in the matter of education structures and principles, pioneers and examples to humanity. To be sure, multilateral measures would have to be taken to help them offset the meagreness of their material and technical resources.

⁽¹⁾ Concordant views on all this are to be found in "La crise mondiale de l'Iducation" by Philip H. Coombs, Paris (PUF), 1968, see page 115.

Section IV - Effects of new education trends on the old education system

It is impossible to deal fully here with every effect since this would, in fact, mean devising a new detailed pattern for an education system.

I will therefore confine myself to indicating these effects so as to show that permanent education has indeed become the basic factor in a radical change of system and to diagnose its main trends.

A. All education

- 1. End of encyclopaedism. Information will henceforth be imparted more and more by mass communication media. Knowledge memorised in the form of detailed facts about the various subjects taught will become increasingly out-dated. Encyclopaedic knowledge will, therefore, logically cease to become the aim of education. The concept of the acquisition during one's schooling of a store of knowledge valid for one's whole existence has become a myth. It will henceforth be necessary to learn where and how to secure knowledge, how to select, integrate and utilise the information received ... Schooling will therefore become less strenuous since it will only be concerned with modes of thought, epistemological principles and their practical application, and the development of the faculty to select and criticise information. Thus lightened, it will comprise less daily, weekly and yearly tasks but will be directed towards genuine intellectual and practical development. Schooling will nevertheless have to be prolonged for everyone to the age of 18 and probably 20. The end of encyclopaedism will thus have functional consequences. Initial schooling, being decisive, will remain compulsory.
- 2. End of loss of literacy. The loss of the ability to read and write, noted in a certain number of recruits in various countries, will become virtually impossible with a system of permanent education and constant absorption of information. The setting up by countries of centres for the dissemination of knowledge open to all and the growth in needs arising from professional requirements make loss of literacy improbable. Furthermore, the extension of the primary schooling

phase - compulsory for all - will eliminate the hiatus which today occurs in the life of many young people between the end of schooling and military service; this period is nearly always lost since studies have been concluded through "saturation" and both public and private concerns refuse to engage untrained staff for so short a period (the report of Rector Capelle draws attention to this difficulty). Thus the end of loss of literacy will have the same functional effects as the end of encyclopaedism.

End of empirical transmission of knowledge. Formerly the duties to the family and the community, health and sex education and the art of social relations formed the subject of empirical instruction given within the family circle. On the other hand, firms taught their trade and professional code "on the spot", and trade-unionism was learned at work through imitation of older employees. Owing to a fuller acquaintance with problems and the growing complexity of the specific machinery whereby they are solved, and to the ever more technical character of all activity, the empirical transmission of knowledge, the unsystematic apprenticeship "on the spot" will lose more and more of their importance, although it will be impossible ever to eliminate them completely. However, instruction in domestic science, hygiene, tradeunionism, sex, birth control, use of communications and consumer goods is already leading to the setting up or development of specialised public or private institutions which have functional machinery of their own but also make use of mass communication media. These bodies will establish contact with man in his home, in his job and at and through the centres for the dissemination of knowledge where he is studying. Work at primary school will be correspondingly lightened, and the other cells of social life will be largely superseded in the work which they did in accordance with outdated traditions and as occasion arose. For example, training for a specific occupation will be given systematically and organically by the firm concerned if it is big enough to have a training centre of its own; in the case of smaller firms, this task will be similarly discharged by a number of firms in association. Central bodies in liaison with State authorities will advise, support, check and approve the endeavours made. This, I would repeat, is only an example. As practical applied knowledge will be transmitted in this way. it will be realised how useless encyclopaedism will be

during the primary schooling phase and to what extent this schooling must consist in developing the intellectual ability to assimilate and inducing a desire to learn. The end of empiricism is therefore a consequence wholly consistent with the two other effects mentioned.

End of specialisation as the outcome of man's primary schooling phase. An individual will no longer begin work with a diploma certifying that he has a narrowly-conceived speciality in a scientific (university) or technical subject. The idea, still prevalent, that a diploma should denote an ever narrower but ever more thorough and precise skill in a specific field is a fallacy. Indeed, to perform the same operations and to solve the same problems scientific and technical progress today makes available new intellectual and mechanical processes which succeed each other with extreme rapidity and call each time for the application of new knowledge which may already be used in another activity sector or may be wholly new. Epistemological approaches change, as do also their methods and instruments; aims are continually being regrouped according to new affinities or as factors in the solution of problems posed in a new manner. Minds must therefore be trained in some conceptual activity of a type and level consistent with their capacities, and must be directed towards application to a broadly defined practical sector. The old definition of a diploma as certifying mastery in a "speciality" corresponding to a specific occupation is generally obsolete, and contemporary activities in all spheres call for polyvalent men capable of adapting themselves easily in the context of a certain manner of thinking applicable to a broad field. Thus, mathematics applied to economy produce the "econometrician": his general mathematical training combined with his general knowledge of economic relations render the econometrician polyvalent with regard to both the new approaches and the new problems in the vast sector in question. Similarly, physical chemistry (with all its processes) applied to astronomy produces the "astro-physicist"... quote another example, cytology and biochemistry applied to the medicine of tumours and haematology produce the "cancer research specialist". Such training, conceived as indicated, produces "polyvalent adaptables" rather than specialists, since the basic training remains very broad and qualifies the student for many other occupations in addition to that simed at. To prepare minds to this end, the primary training phase of man, currently the schooling phase, must be general but must

at all stages provide for many alternatives. Thus educated, man will be able to undergo "retraining" several times during his lifetime. Already Saclay awards only diplomas valid for five years; within this period they will become obsolete, but their holders will, in principle, be capable of assimilating the new technical knowledge required for the exercise of their scientific activities.

To be sure, these new objectives of training imply that professional work or research will have to be carried out by multi-disciplinary teams. Education must therefore cease to be competitive between pupils regarded, as it were, as scholastic "monads": education and the ratification of its results must therefore be a matter of teamwork, the very opposite of the "class" system where one is continually "judged" for what one does by oneself ... even if it is in the context of a would-be team. Today "active methods" are often illusory

End of traditional methods at all levels. All the foregoing considerations condemn what everywhere survives of traditional education methods: memorisation (and its assessment criteria for scholastic progress), book-learning (the book as the basic instrument), lectures by teachers (ex cathedra), passive role and immobility of pupils (adults or adolescents), homogeneity of subjects to be learned by all but personalisation of performance, whereas the contrary should be the case; negative selection (impossibility to "jump a class" or to obtain a diploma) whereas what is required is an assessment for the purpose of guidance in a system with broad alternatives and individually varying periods of study. In view of the current evolution in social relations, these traditional methods have become incompatible with adult activity and it is therefore adult education, with the kind of relations and communication it implies, which will be the transforming factor for education methods in general. The protests of the university students prove this, since they express the revolt of young adults, kept in a state of "schooling", against methods which are socially obsolete and inadequate for the objectives pursued. This status of scholars must, moreover, be related to the changing status of the child in the family circle. In our western societies, the child has traditionally been kept in conditions of social inferiority which implied total dependence, the obligation to obey passively and to imitate. This was curiously reflected by the fact that the words "boy" and "girl" were used to describe adult domestic servants in colonial circles ...

Today the status of children and young people is greatly enhanced for two reasons:

- the speedy reduction in infant mortality and morbidity which makes the loss of a child an exception;
- the smaller number of children per couple, which makes children more "rare" and more "precious".

The child becomes the main object of preoccupation of the family, i.e. the couple, who endeavour to provide the best conditions for the personal development and social success of the young. The personality of children is nowadays taken into account from an early age onwards (1). They are associated with the life of the family and take part in all discussions and even decisions. Parental authority is thereby weakened. Young people are regarded as attaining their majority long before the age laid down in the Civil Code. They acquire consumer status at an early age, for their parents give them pocket money or buy them the cultural or sports equipment they ask for. The economic system is geared to meet this category of need, to stimulate it, to direct it and to provoke new needs. The special "market" provided for the young thus turns them into an important social group which lives according to its own ethical and aesthetic standards and forms a "subculture" characteristic of our epoch. The contrast between the status outside school and the status at school (including the university whose structures have remained immobile at the same time as the mass of its students has remained homogeneous), has become more marked, with the results known to us. The principles governing adult education therefore become the sole possible source of reform of the school and university.

Moreover, the evolution of techniques and the related activities make it necessary for an ever greater part of education to cease to concentrate on the "branches" ("mathematics", "mother tongue", "foreign language", "political economy", etc.), in order to be devoted to the solution of problems calling for the application of the knowledge and thought processes furnished by these "branches". In this connection Kempfer draws attention to a process regarded by him as valid for adult education but which, in our view, applies to all levels of education. Once a problem is posed in its living and concrete complexity, its solution comprises six stages:

⁽¹⁾ In this connection, the concepts derived from psychoanalysis also play their part.

- definition of the problem (clearer understanding of its nature);
- establishment of the facts (securing of all data on the causes or possible effects, in the context of the problem);
- analysis of these facts (notably assessing them);
- decision (making a choice between alternatives);
- action (execution of the decision);
- evaluation (assessment of the results of the action). (1)

Some phases of this process may be "simulated". Nevertheless, if a concrete problem is dealt with in this way, it will be possible, for example, to have recourse to mathematical or statistical procedures, the preparation of reports expressing the conclusions correctly (knowledge of the mother tongue), reading in foreign languages, concepts of social or natural science, knowledge of geography or history. The data of the problem must lend themselves to documentary research and investigation. It will thus become clear what purpose the "branches" taught can serve, how to use them oneself and with a team, how to integrate them with one another to achieve a particular objective. Basically, it is merely a generalisation of the case-study method. The application of these methods takes time and again calls for the alleviation of the study of "branches" through the elimination of encyclopaedism.

Concrete, active education in teams with responsible tasks will produce a polyvalent man capable of adaptation.

6. Complete democratisation of education. We mentioned that democratisation was progressing but that obstacles and resistances remained to be overcome which hampered it, preserving the privileged position of children of leading and wealthy circles, and that although higher education was open to children from poorer classes, a situation persisted whereby studies leading to the most lucrative careers and paving the way to high positions were still largely monopolised by the children of these very leading circles. Further, such studies - already more profitable in themselves - are still today a criterion governing entry into certain careers, and therefore to a certain extent discriminatory against children from socially

⁽¹⁾ Cf. Kempfer, "Adult education", New York, 1955, Chapter 2, pages 20 to 24 bearing on the "thinking process".

less favoured circles. In this respect, "connections" play a decisive role (provided, naturally, that the necessary diploma has been acquired), leading to a virtual monopolisation of the really good posts (1).

These initial injustices, whether due to the impossibility of pursuing studies in youth or to the impossibility of benefiting to the full from a degree or diploma, can, in principle, be compensated under a permanent education system which offers, by definition, "new outlets" at any time thanks to the possibility of acquiring higher qualifications. this respect permanent education constitutes a decisive factor in the democratisation of education and careers at a time when the needs of a society based on science and technology mean that no "reserve of talent" must be neglected (2). desire for equality at the start thus coincides with the special needs of society. These considerations also apply to women who still do not have equal access to education and careers (3); in this respect, too, permanent education will have the same effects. In addition, the new education system and methods, with the break-up of the artificial and inhibiting atmosphere of the school "form" (this Procrustean bed), calls for the generalisation of co-education. Is not this bound to be achieved under a permanent education system covering the whole life span? But the final implications of the principle must be drawn. And, firstly, how could this "mixing" of men and women during the initial education phase not be regarded as a preparation for the "mixed" studies which all will have to pursue as adults in the most varied spheres and under the most varied conditions? One cannot, therefore, escape the principle affirmed for the first time in the Rome Treaty: equal pay for equal work for men and But we must go all the way and deduce from the foregoing considerations that there must be equality of access not only in respect of studies but also, in principle, in ./.

⁽¹⁾ This state of affairs explains why persons who themselves have good positions are so anxious for their children to succeed in their studies.

⁽²⁾ See in this connection my report: "Accès à l'enseignement supérieur en Europe", UNESCO, Part I, 2, "Aptitudes intellectuelles non mobilisées", pp. 66 et seq.

(Conference of Ministers of Education of member states of UNESCO on access to higher education, Vienna, November 1967).

⁽³⁾ See the same report, the section entitled: "Le facteur du sexe".

respect of <u>all</u> scientific, cultural or technical activities. Only in the case of a few rare activities - and even these will disappear with technical progress - conditions may call for the exclusion of one sex; this is the case, for example, with activities based on pure muscular power (common labourer), occupations requiring greater physical resistance such as certain <u>law</u> and order services (1) or activities entailing close promiscuity (certain functions of ships' crews); these may still entail working conditions excluding one sex. If we recognise everyone's right to achieve his ambitions without discrimination - unless justified objectively - and the need for the technical society to mobilise all abilities, the refusal to make education and certain occupations accessible to half of mankind is a mentally backward, socially detrimental and culturally anti-humanist prejudice.

But the term "democratisation" also has a second meaning in the education context: "the democratic administration of centres for the dissemination of knowledge and everyong's right to personal and responsible participation in his own education". As I have explained (2), the need to engage children from the age of reason onwards in responsible activities makes it more or less necessary to impart this trend to the reform of the institutional education structures. May I recall that, in my view, this evolution will lead to the abolition of "schools" - designed for specific age groups and organised in "classes" according to the old school tradition - and their replacement by centres for the dissemination of knowledge and culture covering all age groups of the population. Moreover, in our various countries such centres are already being set up, under diverse - more or less happy - forms, as "cultural centres", "youth centres", etc., although they do not fulfil any, or hardly any, of the tasks performed by schools.

B. Youth education

All the features enumerated above by which all education, whatever its nature, will be increasingly characterised and which result from the new concept of an education system based

⁽¹⁾ However, the women's police force is proving necessary and, in any event, more efficacious in many sectors of urban life and for certain aspects of present-day delinquency.

⁽²⁾ See Section 5: "End of traditional methods at all levels".

on man's permanent education during his whole existence, will also characterise the initial phase of this education, i.e. "school" education:

- end of encyclopaedism and consequent lightening of the time-table;
- emphasis laid on the development of critical faculties and intellectual methods of approach to problems, and the part played by concrete, multi-disciplinary applications;
- need to extend the length of the initial education phase (currently the "school" phase):
- reduction in "empirical" external participations but increase in systematic intervention by new public and private bodies (instruction in such subjects as sex, family responsibilities, work, civics, use of consumer goods, utilisation of cultural facilities, etc.):
- the polyvalent nature of education leading to the award of the most diverse diplomas less linked to a classical "branch" of technology and knowledge;
 - genuinely active "inter-disciplinary" education in teams, eliminating, in particular, individual and competitive marking;
 - selection not linked to a specified period of study, and effected on a positive basis by means of guidance and advice machinery;
 - complete democratisation of access to education and of its administration;
- progressive but rapid disappearance of the traditional school "form" system;
- transformation of schools into "centres for the dissemination of knowledge and culture" open to students of all age-groups, comprising, under new forms, the initial education phase and utilising all means of expression including mass media.

All these consequences of the concept of "permanent education", entailing the need for changes, will affect school education at all levels and will call for fundamental changes in its structures, content and methods.

The same changes will occur at the same time in the field of adult education which, although not yet systematised or forming an integral whole, is already - because of its "adult" needs and attitudes - closer to the special concept of

permanent education as it is being shaped by the transformation of society (1). Here, the effect will, for this very reason, be less revolutionary than in the case of the school system itself. In actual fact, the end result will be the integration of all education in a single system. But, it must be emphasised, the most revolutionary change will take place in youth education. This youth, long kept in an infantile state of dependence, discipline and subjection, will be raised to "adult" status at an earlier age. A distinction must, however, be made between the evolution of sociological growth factors and factors of biological growth. Here it will always be necessary to take account of the organic phases of intellectual development as defined for example by Jean Piaget or Professor Langeveld, Director of the Education Institute of Utrecht University.

This section of my report aims at supplementing the series of points enumerated earlier. To be sure, they constitute the essence of the action of permanent education as a factor in the change of the current education system as a whole. It is, however, necessary to add the consequences peculiar to youth * education.

Firstly, the rapid evolution we are undergoing will definitely eliminate the prejudice whereby "formal" education is regarded as intrinsically superior to vocational or technical education. On this subject, the report of the Marly-le-Roi course has the following to say:

"We have to overcome the prejudice that the culture acquired through general education is more comprehensive and valuable than the culture transmitted through vocational training and professional activity. We have by now largely gone beyond the narrow notion of 'trades', for the rapid evolution of technology and professional mobility require the basic education to be more and more general and cultural."

It will, in fact, become useless and impossible to give genuinely specialised vocational and technical training since such training would be speedily outdated; it will therefore be essential for vocational training to comprise a "general" basis. Similarly, one cannot conceive that in our predominantly scientific and technical society a man may be educated without learning something of the technical aspects of social and economic lire; so-called "general" studies will therefore have to include a technical part. As a result the difference in character of the two kinds of education will diminish progressively. This is what the Swedish concept of the

⁽¹⁾ see Section III.

comprehensive school promises. Similarly, democratisation and selection effected with guidance and advice will help to hasten the disappearance of study sectors monopolised by leading social circles where average levels remain "higher" even today because of the more favourable conditions for study and cultural development obtaining in the families of these circles. The classical humanities, too, will cease to be the "royal way" to higher studies, and dead languages and the cultures of antiquity will completely cease to be the nucleus and symbol of all higher education of the mind. The disparity between the "classical" values and the values of present-day society is growing ever greater and dooms this kind of basic education of which only a few optional alternatives will remain. Today sociology is a better preparation for law than Latin, which has become wholly useless - to say no more - to medical science.

The "defence of humanism" is nothing more than a rearguard action to prolong the existence of a privilege.

Teaching will be more and more personalised in the sense that the education of the young will be increasingly adapted to the intellectual personality and aspirations of each pupil. In this respect, the tutorial system, particularly suitable for adults, will be extended to pupils of all ages, while the new technique of study "by computer" will accentuate the individual character of education.

Furthermore, youth education will comprise a range of alternatives which will broaden with advance in studies. To be sure, each category of alternatives will imply a certain "common trunk" of general basic knowledge ... The fact that it will no longer be possible to relate the acquisition of general or optional knowledge to a given age or a given schooling period, although a pupil will still have to obey decisions arising from pupil guidance and advice (allowing nevertheless for individual alternatives), will cause, as we have shown, the break-up of the present school structure and of the "class" system. This basic fact cannot be emphasised sufficiently. It is perhaps in this respect that permanent education will produce its most revolutionary effects. Here, our view coincides with that put forward in the report by Professor Tietgens, who would like the "classes" to be replaced by "courses".

Pupil guidance and counselling will become ever more essential for the young, since the adult's right to resume, at a later stage, unconditionally, studies abandoned too soon will not give him back the greater freedom of choice enjoyed

by the young. Life's first occupational commitment has indeed irreversible consequences, as Professor Eide points out. The adult's power of choice is restricted.

The concept of studies open to pupils of any age and carried out according to methods resulting from the dialectic of the evolution outlined, the need also to organise, to specialise, to establish the function of information (in the broad sense) on another level than that of formal school education, making use of mass communication media, will bring about the transformation of the school and its integration in "centres for the dissemination of knowledge and culture" as already indicated. This will not be achieved at one stroke nor simultaneously and in the same way everywhere. Initially, schools (including universities) and their equipment will be used daily and on every day of the year from 8 a.m. to midnight by the most varied clientele. The costs of school investment in response to the ever-growing needs of nascent and developing permanent education, make it inadmissible for school buildings to be used only 7 hours a day, 5 or 5 1/2 days out of 7 per weel, and only for 30 weeks a year. This takes no account of some schools that are used for evening classes and on week ends for cultural events ... But this is only the first stage of the evolution described.

Universities will not escape this development and will be "centres" like the others but on a necessarily higher level, since they are also centres for scientific research and cultural creation which by definition are the sphere only of those who possess the necessary abilities. It will be possible for this élite formed by scientific selection to grow continually, although, at best, it will never be more than a strong minority.

C. Adult education

Adult education, will, to be sure, have the characteristics we have endeavoured to define as being those which all education should have in our technical and scientific society, our "civilisation of leisure" (see under A). But it will be the needs themselves, the forms assumed by this "gestating" education and the principles and methods following from its nature, which will be the increasingly decisive factor and the model for the reform of education as a whole. It is, naturally, a gradual evolution which will affirm itself more and more strongly as adult education gains in importance and becomes structurally organised. Just as it was

absurd to take - more or less consciously - as prototype for adult education the school system created for the young, it would be an aberration to act today on the reverse principle. In both cases the resistance due to the nature of the pupils themselves naturally constitutes a more or less conscious factor of adaptation.

However, let us not forget to what extent the traditional school system has hitherto tended to prolong artificially the infantile state of the young subjected to it. In this respect, the typically "adult" characteristics of education conceived especially for pupils of "post-school" age, can only exert a beneficial influence on the education of the young.

It is now necessary to stress how imperfect and clearly inadequate our scientific knowledge is of the different intellectual and characterial capacities for study of individuals of different age groups. And if little is known about the influence exerted on these capacities by physical or physiological changes due to age, we know even less about the effects of changes in socio-cultural conditions and the way of life during different phases of life.

These inadequacies are proved beyond any doubt in the excellent survey published by the Review of Education Research on recent research into adult education (1).

In his survey Howard MacClusky shows that results are sporadic and the relevant data often incomplete and unreliable. The scientific effort has been devoted mainly to the formal schooling phase and the standards established for that level have, in reality, been applied subsequently to adult pupils. Now, there is a demand for instruments devised specially for determining the characteristics of adult pupils and for the application of "age fair tests". The differential psychology of adults is not adequately dealt with, and, in particular, there has been insufficient research into the ability of adults belonging to the lower social strata. Admittedly, it seems that the ability to solve new problems diminishes generally after a certain age, but that the general intelligence level remains the same up to an advanced age. However, it could not be claimed that this has been proved and that the mechanism of the phenomenon can be described correctly.

⁽¹⁾ Vol. XXXV, No. 3, June 1965

Gale Jensen and Albert Schrader deal with socialisation processes. Only a few obvious generalities concerning adults have been put forward as being objectively proved; here, too, the major effort has been devoted to the young... The type of generality produced by research on adults may lead to conclusions of the fellowing kind:

- Security at work (due to the stability and coherent attitudes of superiors) favours the socialisation of members of the group.
- There is a relationship between the personal accomplishment of leaders and their feeling of independence and degree of self-esteem.
- Excessive hierarchical structurisation produces instability and discontent among the staff.
- The size of an institution affects the reactions of its members in regard to participation, emotional state and contentment.

In short, we knew, without knowing ...

Robert Boyd makes a survey on the "group" regarded as a sociopsychological unit for study. Here all the features of group dynamics, more positive than in the case of the preceding object, may be nobilised and adapted to adult education methods. The same procedures could, however, be applied to the young with a view to raising them earlier to adult status in the way explained in sections A and B. In any event these excellent contributions show the need to develop research into the adult personality and its differential aspects (1).

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Here, as in the case of youth education, we shall confine ourselves to adding to the consequences entailed for all education (see section A) those peculiar to adult education.

The democratisation of education together with the need for adults to devote a greater part of their leisure time to educational activities have an inescapable consequence: the right for every adult to resume studies which he might have accomplished in his youth as "initial education" but, for one reason or another, could not carry out or complete. As in the case of youth itself, the principle of a statutory schooling period, of yearly stages to be covered in a homogeneous manner and of branches comprising only limited alternatives (the common

The article by John MacLeish - "The acquisition of knowledge by adults: facts and figures" - published in the (1)International Review of Adult and Youth Education, 1962, vol. XIV, No. 1, p. 45 to 54, gives the same impression. It contains one impressive statement: that, according to Lehman, works "regarded as brilliant" have generally been conceived and achieved by their creators between the ages of 25 and 40. Must it therefore be assumed that this is the natural period of creativity? We agree with the author that men above 40 years of age are indeed the victims of the habits they have acquired, and would add that the most gifted among them are "victims of their own success". It is, indeed, just as though by over-heaping them with honours, with social and academic awards, and high consultative and administrative functions, by arranging for their participation in worldly but non-creative activities, we did our best to prevent them from continuing to devote themselves to their creative work ... However, the article by MacLeish would seem to reveal two trends: with age, the reactions of adults become slower, but they preserve and even improve their intellectual abilities if they maintain them regularly (what an argument in favour of permanent education!).

programme remaining the main part) will cease to be applicable. The resumption of studies will therefore offer adults highly flexible opportunities. Similarly, the traditional methods - those of the school - still too passive and little differentiated, will be replaced by methods of active personalisation practised in small groups, and the adult will find it easier to have recourse to institutions intended mainly for the young. The expansion of evening classes and correspondence courses (1) will offer other opportunities. The certificates awarded for such studies will acquire, under appropriate conditions, the same value as certificates covering the same subjects obtained - perhaps within a shorter period of time - by full-time study.

The "centres for the dissemination of knowledge and culture" should also provide adults with possibilities of reorientation (at the same or a higher level), re-training, refresher work, acquisition of supplementary knowledge, cultural development, community activities (see section A).

Adult education will develop its structures while being integrated with the new overall education system in which it will be the fundamental factor of change. Just as the democratisation and promotion of studies have determined a whole social policy of study grants and of assistance of various kinds (payment of family allowances during the whole period of study, etc.), the same needs will lead to a social status of adult education. One of the features will be the generalisation of a kind of reduction in hours of work: the transformation of hours, days and weeks of work into "educational leave" with normal pay. The allowances for study expenses or "loss of earnings" (when the studies concerned exceed the duration of the educational leave), will be financed from a new social socurity branch. The highest vocational training at all levels is essentially of concern to firms but also to the State and to the individual workers themselves; it therefore calls for such a method of financement which also has technical, political and psychological advantages. It does not require new functional machinery, as it implies a very broad spreading of charges and, through being included in the cost price, obviously links promotion through study to work status.

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⁽¹⁾ These courses themselves, far from remaining aligned with the school system (homogeneous periods and subjects, identical work and exercises by a whole group), will lend themselves more and more to personalisation (see report of Louis Cros on "Correspondence education in France").

Section V - General conclusion

The foregoing considerations have permitted us to stress the necessary features of permanent education. They are necessary in the sense that the evolution of society, and on the basis of this dynamic, the overall function of the education system, call almost automatically for a change in education structures, contents and methods.

It is, indeed, impossible to avoid the conclusion that education must become "permanent", i.e. must constitute an activity pursued by men and women during the whole of their life span from childhood onwards.

The special features of this education will after all be determined by the force of things. Education as a whole will fulfil the most varied aims: initial youth education; refresher, reorientation and re-training; supplementary education of a cultural, civic or practical nature.

It will be of a predominantly optional character from the initial education stage onwards. It will aim at inculcating intellectual or technical methods rather than knowledge, for everything that comes under the heading of information will be disseminated by mass communication media and not by educational establishments. The phases of education will not be linked to a given period of study and it will not be necessary to learn all the subjects of a syllabus simultaneously. Progress in each subject will be solely the responsibility of the pupils or students, according to their intellectual or work capacities. Studies will call for the critical spirit and personal activity by participants working in teams. Pupils will be taught how to learn and how to use mass communication media profitably on behalf of individuals and of the community. Creativity in work and leisure pursuits will be promoted. Studies will take many forms; full-time, evening classes, courses, education by correspondence and by audio-visual media, programmed instruction including the use of computers.

For the man of tomorrow will have to be able to adapt himself continually to changing situations. To survive he will have to be able to act independently, responsibly and in fellowship, be prepared to criticise but also to submit to unconditional discipline as soon as it is imposed by democratically-controlled authorities.

"Centres for the dissemination of knowledge and culture" as many as are required for the population density - will take the place of schools, youth and cultural centres, public libraries (which They will have debating will be integrated in the centres), museums. chambers, theatres, cinemas and sound and television broadcasting They will have their own printing shops and will comprise sections. "workshops" for the most varied creative activities: introduction to research, the arts and dancing. They will be surrounded by sports facilities. Some of these centres - while of the same nature as the others - will be the equivalent of our present universities, since they will be responsible for organising scientific research and taking education up to the highest level (including "post-graduate" work). They will be focal points for They will be focal points for economic and cultural development and centres of leadership for broad areas. It is in their teaching and methodology institutes that the constant renewal of the permanent education system, conceived as an integrated system, will be prepared.

Apart from the "centres for the dissemination of knowledge and culture", whether of university level or not, major industrial concerns, professional organisations, major administrations and general interest associations will organise special education courses in the context and spirit and according to the plan of permanent education.

To be sure, the radical changes called for by these new concepts will entail a considerable increase in education expenditure. Economic growth will enable it to be met and will, moreover, be hastened since, by meeting the expenditure, it will better answer the quantitative and qualitative demands of education needs in the technical society and the civilisation of leisure.

The success of this venture can only be conceived in the light of a politically integrated Europe determined to control its destiny. This is a question of scale.

At its origin, in the nineteenth century, the campaign for compulsory schooling seemed revolutionary and utopian ... Today's "permanent education" campaign - with all its implications may also have "futurist" aspects. But in addition to being "futurist" it is also a "future feasibility", and the preview may show us by what stages, under what conditions and at what price it may become reality.



