Economic growth and the welfare state have lengthened initial obligatory education; specialization is postponed; general education widens. Nevertheless, many youths in industrialized Europe leave school for work at 16; losers in the generalized school, they resist further learning. Schools should provide a variety of learning situations, and work experience should be given equal competence with academic learning. Where learning has been pleasant, adult education can be effective in achieving greater democratization and equality—whose forms must be decided by political authorities, not educationalists. For adults, the closer the connection between learning and living or working, the more effective the education. The trainer's task is arranging a work situation which makes informal learning go on all the time. A close cooperation between the school and the world of work will be necessary for both, and their integration must be carried out at the local level. Adult education will necessitate changes in work organization, to offer sufficient scope for learning and personal development. Co-determination, however, will have to take place within the general aim and framework of the management process. Equal opportunities can only be achieved within a total system which is a common responsibility, supported by the whole nation's financial resources. (AuthorAJ)
Definitions.

I have chosen to see it as my task in this lecture to talk about adult education in a developed society in general, and not limit myself to a strict interpretation of "training of adults". Although I am going to talk about adult education in general, I will give special consideration to the aspects of adult education which are of importance for the world of work.

There are several definitions of adult education. The Norwegian Parliament gave in 1965 the following definition in the Parliamentary Bill No. 92:

"For the purpose of this report adult training means all education which is not part of the initial education. According to this definition the concept of adult training comprises all general education and specialized and vocational training which adults seek to obtain after having gone to work for some time."

Since 1965 there is a tendency to see adult education as a part of a system of lifelong education. This view is expressed in the definition given by the Government committee to prepare a law on adult education. In the committee's report of 1972 it says:

"Adult education is part of an educational offer which aims at preparing the conditions for lifelong growth for everyone as an individual and as a member of society through training in vocation and/or spare time.

Adult education is education which is not regulated by law or in any other way institutionalized initial education, arranged for adults."

The term "adult education" is not a very good one. Many forms of education for adults will not be included in this term, for instance university studies and all forms of education
for adults which are a direct continuation of initial education. The thing that really characterizes adult education is not that it is for adults, but that it comes after a period out of the school system.

Adult education within the framework of a system of recurrent education.

We tend to view the individual's life as a continuous process of learning. At different periods in life different kinds of learning is needed, so we get different periods of recurrent education suited for the needs of the different life periods. In such a system there is nothing special about adult education, because for all periods of life education must be in harmony with the special features of the period concerned. One might say that in this system each individual will be given a ration of education. This ration may be taken out in bigger or smaller parts during the individual's whole life.

When we nevertheless talk about adult education as a special discipline, this is because the initial education in our school system is so dominating that adult education has to be kept apart from it till it is strong enough to be associated into a unified system. At present almost all educational tradition and educational research concerns initial education.

The optimistic faith in education which dominated around 1960 is gradually changing, and so is the firm belief that education is a major source of economic growth. Some educationalists (e.g. the educational sociologist Coleman) today argue that school facilities and teachers only have a very limited impact on learning, as learning is mainly dominated by home background. Other educationalists say that school discipline has an alienating effect, and that society ought to be de-schooled. Personally I prefer a more modified view. My conclusion is that learning in the form of initial education up to a certain point is important both for personal development and economic growth. But this is not valid for all initial education and it is not valid only for initial education. At some point in an individual's development
in our society education and learning becomes most effective when combined with practical experience.

Tendencies in educational systems today.

Educational systems are in a period of rapid and continuous change. For adult education these changes will have great consequences. The trends that are developing as regards initial education are of special importance. The conditions for adult education are in the main decided by the characteristics of initial education.

What are the general tendencies in the development of educational systems today? The economic growth and the development of the welfare state has made it possible to lengthen the period of initial obligatory education. This is the case in most Western European countries. A general phenomenon is also that in all educational systems the specialization is postponed as long as possible. When a certain amount of specialization takes place, the systems are made as flexible as possible in order to make a change from one speciality to another easy. The justification for this is that the individual should not be tied down to a special vocation or a special field of study before it is absolutely necessary.

The result of this tendency is a constant widening of generalized education. Even within purely vocational training this tendency is making itself felt. There are very few educational alternatives for those whose main interests and abilities are of a more practical nature. This again has led to an increase in the amount of adjustment difficulties in the last years of obligatory education. Another result is that a natural contact with ordinary life in our society and specially with working life is postponed. The period of artificial, isolated educational hot-house existence is getting longer and longer.

Some statistical information will show the high enrolment in secondary education. In 1970 the following percentage of the age group between 15 and 18 years old were enrolled in
full-time education:

<table>
<thead>
<tr>
<th>Country</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.A.</td>
<td>82,9%</td>
</tr>
<tr>
<td>Canada</td>
<td>78,1%</td>
</tr>
<tr>
<td>Norway</td>
<td>68,9%</td>
</tr>
<tr>
<td>Sweden</td>
<td>68,1%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>62%</td>
</tr>
</tbody>
</table>

There are great differences within Europe. Some of the lowest percentages are given by Germany with 30,5, Spain 26,7, Portugal 24,5. In spite of the differences the tendencies in the developed countries are the same. The percentages are steadily increasing.

There are mainly 3 types of post compulsory education in most developed countries:

1. Schools providing preparation for higher education.
2. Schools intending to lead directly to employment.
3. Part-time education facilities combined with work.

Today we also see a fourth type of education emerging, a combination of type 1 and 2 above. The idea is to eliminate the distance between general academic education and vocational education in a school system where these two types of education can be combined in different ways. It is the hope that this will also help to eliminate the present dichotomy between school and the world of work, by drawing on the resources of the local industry for the learning going on in the schools. It is also the intention behind this type of education to provide educational facilities for all interests and levels of ability within one unified school system. It is pretty certain that one result of this will be a further prolongation of the initial educational period.

In spite of these reforms we still have and will probably always have a group of young people going straight into employment after having finished compulsory school at 16 years age. In 1970 about 1/4 of youth in the industrialized part of Europe did this. They must go into unskilled or semiskilled work. What are the problems of these young people? They are probably loosers in the school system and will
probably he so more and more as the period of obligatory education is prolonged and generalized. It is a reasonable proposition that these young people will develop a resistance to further learning, because their experience of learning in school has been an unpleasant one.

Here we arrive at a point of great importance to adult education. For all young people to whom attendance at school has not been a success, the concept of learning is negatively loaded for the rest of their lives. Learning means the school situation over again, and for these people, who are probably most in need of adult education, a repeated experience of an unpleasant learning period is not very tempting. There is something fundamentally wrong in a school system which makes people loosers. We are all winners in some field and loosers in other fields. But our school system has mainly had facilities for those who are winners in certain theoretical-intellectual fields and who are successful in one form of learning which mainly requires good memory and imitation. Even for some of the more successful ones, school learning tends to become a negative experience because teachers in too big classes have to use most of their time helping the unsuccessful pupils. For the school system it is of the greatest importance to develop educational alternatives for different kinds of abilities, so that nobody needs to be a looser. For adult education it is necessary that we develop a new concept of learning. This must mainly be done in the initial education. "Learning" must not mean only a repetition of a school situation. Learning should cover the whole process of the experience of increased understanding of complex situations and of mastering a problem, acquiring a skill, and of using earlier experiences in new situations. This learning keeps on through the whole life of the individual and takes place all the time. Only a fairly small part of this learning takes place in school. In the school system young people should be given the opportunity of experiencing a great variety of different learning situations and of the joy of mastering a problem and of using one's abilities to the utmost in reaching standards of high quality. An experience of this kind of learning is perhaps the most
important thing the school system can give, and it is a
decisive condition if adult education is to realize it's
aims. In order to create a new concept of learning, other
forms of learning should be given equal importance with
traditional forms. The importance of different kinds of
learning depends on the competence given. For instance
certain forms of work experience should be given equal
competence with ordinary school work. This is important for
the development of enough educational opportunities and for
making learning a pleasant experience for everyone.

Aims and dimensions of adult education.

On the basis of an educational system where learning is a
pleasant experience, adult education can be effective in
reaching its aims. What are these aims? It is generally
emphasized that adult education should help in the process
of democratization and in creating greater equality. This
means that we must specify what we mean by equality and what
specific forms democracy should take. This cannot be decided
by adult educationalists. It is the job of political
authorities. The aims and priorities of adult education have
to be decided on a political level. There is, however,
general agreement that within a democracy everyone should
have the opportunity to develop according to his own wishes
and without economical and geographical limitations. For
the world of work the increasingly rapid technological
development necessitates certain forms of adult education,
both with the aim to keep knowledge up-to-date and to give
new knowledge. Structural changes will also make it
necessary to learn new vocations. The process of democratization
in industry is also dependent on learning new forms of
organization and management and of distribution to more people
than before of knowledge necessary for the decision process.
In a system of recurrent education the special interests of
industry will be an integrated part of the general aim of
adult education which may be said to be:

1. To serve the individual's value orientation and personal
development and strengthen him in his life situation in work and leisure.

2. To strengthen the individual's possibilities for effort and active co-operation in the world of work, also when new demands make themselves felt or by change of work, and contribute to secure the individual's right to work.

3. To stimulate and make the individual capable of co-operation in decisions involving questions of priority of social values.

The wide field that adult education is supposed to cover makes it difficult to estimate the scope of adult education in the future. This depends on different factors. One factor is the motivation in individuals for further learning and development. It is also decisive how well we are able to meet these motivations by our educational opportunities, and how well these are adjusted to the learning situation of the adult. A third factor is the activity in contacting the people who are most in need of adult education. Without this activity which can most successfully be carried out by the free educational organizations and by business and industry, adult education will not reach very far. This activity however must not have the character of pressure on the individual to take part in adult education. It is part of democracy to be allowed not to take part in adult education activities.

As regards industry, there is no doubt that the need for adult education and the responsibility taken for adult education will be much greater than it is today. The cooperation between industry and the official school system will also increase, for two reasons:

1. Industry will have to use the educational offers of the school system to a much larger extent than the case is today.

2. Industry will have to involve itself in the responsibility for the official school system in order to help it to develop the right educational offers for adults in industry.
The special situation of the adult learner.

The learning situation and the conditions of learning for an adult are different from those of a person engaged in initial education. There is difference in motivation. The adult must see the purpose of learning. His learning must be experienced as a meaningful activity in satisfying his personal needs. This means that his learning must have some relevance for his work or his actual life situation. The closer the connection between learning and living or working, the more effective learning. This is one of the reasons why so much adult education should take place in the industry or work-place where the individual is engaged.

Another reason is in experience. The adult learner has resource to experiences from work, from political or social life which the initial learner does not have. For this reason much of the content of initial learning will be felt as childish for the adult learner. Special learning material will have to be devised, and the experiences of the adult himself can be used as material in the learning process.

The third difference is in the ability to plan and administer your own learning process. For the initial learner this ability is not as developed as in the adult learner. The adult learner will have to be involved in planning his own learning and this will also strengthen his motivation.

The special features of the learning situation for the adult mentioned above, have as a consequence that learning in working life, in business and industry will be of special importance, and that the trainer working in business and industry will play a special part in adult education because he is working in a situation where adult learning is most effective. From the viewpoint of life-long education both the formal and informal learning taking place are of value. The trainer in business and industry will play a role which
is different from the educationalist in the ordinary school system. To arrange courses is only part of his responsibility. The most important task he is faced with is to arrange a work situation which makes informal learning go on all the time. His material in the learning process is the actual work and the work situation. He will have to see what motives for learning the work situation creates for the individual and use this as the basis for the learning activities. He will have to see how the working group of which the individual is a part, can create a favourable learning situation. He will be an adviser and a resource person for the adult learner in his planning and carrying out of his own learning process. This means that the trainer in business and in industry needs to have a much better insight in motivation and group psychology than has been the case with the educationalist in the school system. One of his main tasks will be to create work situations which are motivating as regards learning. In adult education learning must be a self-carrying process, and this can only be the case when the motivation for learning is inherent in the work situation in which the adult is engaged. This means that one of the main qualifications for adult trainers must be their social skills, their ability to analyze a social situation, remove the factors which inhibit learning and make people want to learn and develop. These qualifications are far more important than the ability to plan courses or to use modern technical equipment.

Co-operation between school and working life.

In the future a close co-operation between school and the world of work will be necessary for both. If the present plans for vocational training in the school system is to succeed, the schools must use the resources of industry both as regards vocational insight and the use of complicated, heavy and expensive machinery. The schools will also depend on industry in order to keep up-to-date in their vocational training. Very likely some of the learning in the school system for the age 16-18 years old will have to be carried out in industry, in an office, a factory etc. Industry itself will need to co-operate with the school system in order to create learning experiences which will be conductive to later adult learning in industry. In some countries,
for instance Norway, the labour shortage at present and the increased shortage expected in the future will make it necessary for industry to enlarge its contact with the school system in order to give a more attractive impression of industrial life than has been the case hitherto. For many branches of industry the two decisive factors for recruitment in the future will be the image the industrial branch can give of itself in the schools, and the opportunities for further learning and development they can offer as part of the work.

The individual companies will have to carry out different forms of adult education originating from the needs of the special technology in the company. Adult education in a company is expensive and must partly be paid by the company itself, but it is necessary for the company to use the resources of the school system to a much larger extent than today. The companies must be able to use teachers from the school system in their internal educational activities. Industry must also help to develop training programs suited for the actual needs of industry and which can be carried out by the schools. It is necessary to develop a new concept of competence in order to make the learning in industry effective and in order to further the cooperation between school and industry. Certain kinds of learning activities in industry will have to be given equal formal competence with traditional learning in schools. This applies both to the learning of students from the school system in an industrial situation and to learning of adults engaged in industry.

The integration of school and industry must mainly be carried out on the local level. The industrial trainer will have this as an important part of his responsibilities. He must familiarize himself with the local schools in order to help them develop and carry out the vocational training of greatest importance for the district and in order to make use of the facilities of the school system in the adult training activities of his company.
Changes needed in work organization.

Adult education in the future will necessitate changes in work organization in the companies. The present more or less haphazard practice as regards training will have to be substituted by well planned training programs fitted to the changing technological conditions and coordinating educational facilities provided by the official educational system with the special tailor-made internal programs in the company.

In countries where we will have a hard labour market in the future, which seems likely for instance as regards Norway, companies will have to offer facilities for training and development in order to compete on the labour market. Work organization and job design will have to be re-evaluated in order to offer sufficient scope for learning and personal development. The opportunities for informal learning in the companies by means of new ways of working together and new opportunities for using personal insight, judgement and sense of responsibility will be as important as the more formal aspects of education. People with a high level of general education will tend to become frustrated in jobs of a merely routine nature.

For these reasons the work of developing new forms of job design and work organization is to be considered partly as a social necessity and partly as a vital aspect of a system of adult education and training.

Democracy and adult education.

In the democratization process there are at least two different developments which will affect adult education, and specially adult education in industry. One kind of development is going on within industry itself and is independent of what is happening as regards adult education. I am thinking of the development of different forms of co-influence and co-determination in industry. The second kind of development is directly concerned with adult education. Adult education is to a constantly increasing extent regarded as a tool for equalization and democratization, and this seems to become decisive for most of the political decisions as regards the structure, organization
These two developments will work together and have the same general effects. They will affect the questions of goal setting, of planning and of methods used, in the direction of greater influence for the people taking part in the adult education process.

This situation poses certain problems in general, which will appear in a clear and concentrated form in adult education in industry. The way in which training programs in industry has been planned so far, has been that some representative of management has analyzed the training needs of the company on the basis of the company's task now and in the foreseeable future, and on the basis of his knowledge of the competence of the employees concerned. Usually he has interviewed employees and consulted them during the process, but it has been a management responsibility, and all final decisions have been made by management. This has been natural enough, since training and educational activities are important parts of managing a company. If this responsibility is to be given to the employees, how can management still take the responsibility of running the company?

As we have stated earlier, the inclusion of the adult learner in planning and carrying out his own learning process is favourable from a pedagogical point of view. But training in industry cannot adopt an individual approach only. There are the training needs of the company as a whole to be considered, and there are the changing technology, market condition and financial situations to be expected, and which one cannot expect all the employees to be familiar with. The training necessary to meet these conditions must still be regarded as part of the management process, and for this reason also the responsibility of people qualified to take part in the management process. Whether these people are worker representatives or not is irrelevant in this connection. The main thing is that they are adequately qualified and also have the responsibility of management.

The other side of the question, the favourable effects of
including the adult learner in the development of his learning process, will have to be taken care of within the general aim and framework resulting from the management process. Within this framework we will have to try to make as much room as possible for the co-influence of the individual employee.

There will of course also be many other kinds of education and training going on in a company in the future, training which is to satisfy individual learning needs and to which the reasoning mentioned above will not apply. In this kind of learning the co-determination principle may be fully applied.

But even in this case I do not believe that co-determination can be extended in such a way that the education process loses all its structure. The completely un-structured approach I believe is an educational fad, from which we have something to learn, but which is a passing phenomenon.

**Financing of adult education.**

Certain principles can be considered as basic for financing of adult education: Everyone should have equal opportunities for participating in programs of adult education, irrespective of social, economic or geographical status. This can only be achieved within a total system of adult education which is a common responsibility for the country and which has to be carried out by the whole nation's financial resources. As regards industry the cooperation with the school system and the extension of the school system into the companies should mean that there has to be a very flexible arrangement as regards sharing the cost of adult education. All education carried out by the school system should be financed by the official school system, irrespective of whether the education takes place in a school or in a factory. It would be natural for the companies to finance special training which only increases the individual's competence in his present job or his present company. All general education which increases the individual's qualifications for a larger area of the labour market should be paid by the state and partly by the individual himself. As regards adult education programs where the individual has
to pay something himself, a general arrangement of study loans should be available for everyone.

The question of paid educational leave is being taken up in many countries. This is certainly not a simple problem. Some companies can compensate for increased educational expenses by increased prices. Companies in special competitive industries cannot do this. Companies with many employees can function even if some employees have educational leave. For small companies this will be difficult or impossible. This means that some mechanism of regulation and distribution must even out the differences and see to it that the basic principles of non-discrimination will function in practice. The International Labour Organization adopted a convention and a recommendation on this question in June this year. But it would not be right to solve this special question isolated. The problem of paid educational leave is only a part of a large general problem. One cannot and should not lay down principles as regards the problem of what the employer should pay in connection with educational leave. This can only be solved as part of the problem of financing adult education of a country in general.