Session 3:  
Responding to rapidly changing labour markets through new forms of knowledge production: Organisational and epistemological shifts in higher education

Vocationalism in Higher Education:  
A Reflex on the Stigmatisation of VET.

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The university as the place of higher – scientific – education was, in historical perspective, above all a place of the struggle for scientific knowledge, or, to put it more emphatically, for truth. When Albert Einstein was awarded a professorship at the Friedrich-Wilhelm-Universität in April 1914, his appointment contract stipulated that he was at liberty to teach. He could concentrate wholly on his research and was free to further develop the new physical world-view. The freedom of research and teaching is protected by the constitution in democratic countries, and science, represented by university professors, to some extent served as a kind of “fourth power” besides the legislative, executive and judicial power in the course of the development of the separation of powers. The medieval university was established as universitas magistrorum et scholarium and also in the sense of a studium generale, not a studium particulare. From their very beginning the universities had to defend themselves against being influenced by the state and the particular interests of other agents, e. g. financially powerful enterprises. It was only upon the foundation of technical universities in the 19th century that traditional university education was confronted with the alternative utilitarian model of the education of engineers. For the first time vocational education at the university level was established in close co-operation with industry, which up to this point had been considered a contradiction in terms. Whilst at the Ecole Polytechnique in Paris scholars like Laplace continued to deal with technology from a universal perspective and with reference to philosophy, at the technical universities all over the world the concept of a studium particulare and thus of university level vocational education and training did prevail.

It appears as if in the course of the international enforcement of the Anglo-Saxon tradition of two-cycle university education with Bachelor and Master programmes the universities are finally drawn into the stream of vocational education and training. The establishment of the two-cycle system in Europe by 2010 as planned by the agreement within the European Union known as the “Bologna process” is a political
and bureaucratic top-down process to which the universities submit only reluctantly. This is a quite unusual process which has rearranged the balance between state power and science distinctly in favour of executive and bureaucratic forces. Here the question arises whether political power has definitely succeeded in instrumentalising science and research for non-scientific purposes. To put it another way: Does the equilibrium between education and qualification at universities, which has grown over centuries, still exist?

Yes and no. Today things are more complicated than with regard to the balance between state power and the freedom of research and teaching as it was, for instance, advocated by Wilhelm von Humboldt in the early 19th century with the foundation of the Berlin university named after him. As Prussian minister for culture and schooling he successfully prevented the “vocationalisation” of university teaching, which must be regarded as a milestone in the history of universities. It is helpful for our discussion to keep in mind that it was politicians and administrators like Wilhelm von Humboldt who, conscious of the state interest in innovation policy, wisely protected the universities from vocationalisation. Since then the universities and thus academic education have resisted educational utilitarianism. Now the insight that a vocationalisation of university education undermines the innovative potentials of universities and questions their status as places of independent pursuit and gain of knowledge appears to give way to the widespread intention to organise university education as some kind of higher vocational education and training. The question is thus: Where does this tendency come from and what are its consequences for the structure of educational systems – especially with regard to the tension of academic and vocational education?

ACADEMIC DRIFT VERSUS VOCATIONAL EDUCATION AND TRAINING

At this year’s Shanghai Forum on Vocational Education and Training Professor Lim, Deputy Director of the Vocational Education and Training Authority of Hongkong, presented the thesis of the stigmatisation of technical and vocational education and training. He referred to the development in Hongkong. “The preferred educations path in Hongkong is to proceed through six years of primary school, five years of secondary school, two years of sixth-form education and three years of university. The competition to stay in the mainstream education system right up to university is very keen” (Lim 2005, II-18-9). After a series of examinations at the end of each school level, only 18 % ultimately receive one of the desired university places in Hongkong. The others are, in terms of their social standing, increasingly viewed as losers or failures. As a first step Hongkong aims to increase the student rate to 30 %. Lim explains the high estimation of university studies and the stigmatisation of vocational education and training with the well-paid positions combined with a high social status that become accessible via a university degree.

According to Lim particularly three deeply rooted prejudices account for the stigmatisation of technical and vocational education and training:
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- TVET is only for dullards,
- TVET is an education that cannot lead to university studies,
- TVET has limited economic value.

Whether Hongkong will succeed in fighting against these prejudices and in implementing the counter-strategy of establishing top-up degree programmes to improve the permeability between TVET and university education remains an open question.

With regard to the situation in the People's Republic of China Yang Jintu¹ pointed out that within the relationship between university education and TVET the emphasis is shifting at considerable speed towards general education. “Investments in vocational education are neglected more and more. Although vocational education and training requires higher investments than general education, the proportion of public investments used for TVET is steadily decreasing (see graph 1).”

![Graph 1. Decline of the investments in TVET as proportion of the entire investments in the educational system in China (according to Yang J. 2005)](image)

Higher vocational education and training, on the contrary, is developing into a major trend in the urban centres of China. What is remarkable here is that unlike the traditional way higher vocational education and training is not established as an intermediate educational sector in “vocational colleges” or “community colleges”, but as an independent branch of the university sector. The affinity of this trend to a “college for all” policy is clearly perceptible. It is especially in the growing middle class in China that the parents’ struggle for the university admission of their only

¹ Vice president of China’s Vocational and Technical Education Academy and director of the Academic Dept. of China Vocational and Technical Education Academy.
child often dominates everyday life in those years when decisions on the further steps of the educational careers are made, that is, at every threshold to the next school level. The academic drift has come at last to the urban centres of China with remarkable energy and puts a heavy pressure on the modernisation process in the domain of vocational education and training. If one looks the OECD statistics on newly-enrolled university students it turns out that the academic drift is obviously unstoppable. In a large number of OECD countries the concept of “college for all” shapes educational policy and educational practice.

In countries like Australia, Sweden, Poland and the United States the rates of new students meanwhile have increased to figures between 60 and 75 percent. If student rates are above 60 percent, systems of technical and vocational education and training hardly play any role at all. They are confined to the qualification of risk and marginalised groups in order to improve their employability. The OECD statistics also show that some developed countries, contrary to this tendency, have remarkably low rates of new students. These are, among others, Switzerland, Austria and Germany. The reason is above all that these countries still have highly developed systems of technical and vocational education based on the model of apprenticeship training, which are attractive both for school leavers and for enterprises. The international trend towards a stigmatisation of technical and vocational educational education and training has not yet reached these countries. At the same time they have a system of university education where there is still an equilibrium of education and utility. The vocationalisation of university education is (as yet) kept within the limits as they were drawn in the past century. Given the polarisation between countries with very high and those with very low new student rates the question arises concerning the adequate relations between university education and TVET. Is it possible to justify the trend towards the vocationalisation of university education with the changes in the world of work and the labour markets?
THE EMPLOYMENT STRUCTURES IN DEVELOPED NATIONAL ECONOMIES

Labour market research draws a distinction between employees with low, intermediate and higher qualifications. Accordingly there is a distinction of three employment sectors. It is interesting in this respect that regardless of the structures of the national educational systems - whether 25 or 50 percent of school leavers make their decision for university studies - the employment structures of these countries have similar features.

The absorption capacity of the employment system for highly-qualified employees is below 20 percent. At the same time a decline of the proportion of unskilled and low-skilled workers of approximately 10 percent and less is estimated for the next ten years. This means that for nearly two thirds of the employees a qualification for the intermediate sector is required. Normally these qualifications are acquired within vocational training programmes at the level of skilled workers and technicians. In Switzerland, for instance, more than 70 percent of school leavers still opt for apprenticeship training, which also includes the opportunity to obtain the formal qualification for university studies.
CONSEQUENCES FOR THE ORGANISATION AND DESIGN OF UNIVERSITY EDUCATION

The situation described above entails two alternative scenarios for the future of university education.

The “college for all” scenario

In this scenario educational policy draws the conclusion from the academic drift, triggered by parents’ interest to enable their children to attend university, and gives access to university to all school leavers who have the required formal qualification. In the course of a ranking there emerge top universities with highly selective admission policies as well as universities for everyone where the entry requirements are relatively low and less restrictive. Furthermore, the tendency towards the establishment of study programmes below the level of complete academic programmes of at least five years continues. The Anglo-Saxon model of two-cycle university education, starting with a three to four-year Bachelor programme which is followed by a two-year Master programme for a minority of graduates, prevails worldwide. In addition sub-baccalaureate programmes at the level of the qualification of skilled workers and technicians are increasingly established. The fact that these programmes are termed sub-baccalaureate studies and their location at the universities suggest a “college educated” status and respond to the academic drift. At the same time the qualification requirements are reduced to the level of traditional models of vocational education and training. This development entails the possibility of improving the reputation of vocational education and training within the framework of university education. On the other hand enterprises increasingly have to take over the task of practically qualifying university graduates. In this respect Norton Grubb quotes a typical statement from the director of a mortising machine plant: “I don’t think the technical colleges necessarily can give the depth of training which can be learned in the industry itself.” Said another manager from an engineering company: “The difference [between our apprenticeship programme and education programmes] is that we base our instruction on real life situations and not on the theory behind it. We bring in actual parts. We bring in actual prints. We talk about real life situations. I don’t think you get that necessarily in a school situation” (Grubb 1999, p. 176).

Since at present the Bachelor’s degree is still the first university degree in the vast majority of countries, graduates are regarded as candidates for the intermediate employment sector: they are considered employees with intermediate qualifications. In many cases this requires an additional period of apprenticeship training subsequent to university studies. The international tendency towards the reestablishment of apprenticeship training (e. g. Italy, Scotland, Australia) is supposed to be a reaction to the demand for qualified employees for the intermediate sector. Frequently the target group of modern apprenticeship are graduates with a Bachelor’s degree.
This scenario solves the fundamental contradiction between the programmatic formula “college for all” with a corresponding educational policy on the one hand and the necessity to qualify two thirds of the workforce for the intermediate sector on the other by means of an absorption and transformation of TVET by the universities. Universities become institutions of vocational education and training, and the label “higher vocational education” serves the purpose of image-making.

Enlightenment and critique as dimensions of comprehensive education are neglected in the framework of a utilitarian model of university education. In this context there is the danger that the universities lose their innovative potential. Of course it is possible to counteract this by a distinction between a few top universities and a great number of mass universities, the latter being hardly more than vocational colleges. In the end this scenario could turn out as a mere replacement of labels.

**The scenario of modern apprenticeship and top-up qualifications**

The alternative scenario is puts its hope in a developed TVET system which offers attractive educational paths for those two thirds of employees working in the intermediate sector. This requires that the stigmatisation of technical and vocational education and training is effectively opposed and that vocational qualifications give access to university education (top-up approach).

*Initial vocational education and training is integrated into the secondary level of the educational system or located at the post-secondary level if trainees are already in possession of an upper secondary level qualification (e. g. Abitur in Germany). It is quite common that even graduates with a Bachelor’s degree undergo a dual apprenticeship in order to improve their employment opportunities. The basis for vocational education are training programmes of three to four years, which are oriented towards occupational profiles (Berufsbilder). The business sector is participating, via industrial associations and trade unions, in the process of educational planning, i. e. the definition of occupational profiles and the development of training plans, and also in the practical training in companies. This qualification model integrates in-company training and a component of theoretical vocational education in vocational schools, which reflects the work experience. The objective of apprenticeship training is occupational aptitude (Berufsfähigkeit). Upon completion of their apprenticeship the trainees are expected to be in*
possession of the professional competence of skilled workers and to be able to perform professional work without any additional training period on the workplace.

The integration of initial vocational education and training into the educational system leads to the formulation of objectives that are oriented towards general education. A pioneering example in this respect is the learning objective adopted in 1991 by the Conference of Education Ministers in Germany which aims at enabling trainees to participate in shaping society and the world of work with a sense of social and environmental responsibility (see KMK 1991). This type of initial vocational education and training thus also has a mission with regard to general education. However, the proper response to the tension between education and qualification is regarded as a particular pedagogical and didactic challenge.

The educational contents are derived from the characteristic tasks and qualification requirements of the respective occupation on the one hand, and by reference to the educational goals on the other. The educational contents represent action-oriented and action-reflecting knowledge. The structure of these contents is based on criteria of competence development or, respectively, on the novice-expert paradigm. The training contents are parts of an integrated context, which is constituted by the respective occupational profile.

The target persons of initial vocational education and training normally have a lower secondary level qualification. Since apprenticeship training is a method of qualifying adult persons for professional work it is open to everyone who wants to learn a specific occupation.

The training period lasts between three and four years and is spent, as far as the practical part is concerned, in professional work processes according to the apprenticeship model. The accompanying school-based instruction serves the function of reflecting and systemising the work experience in order to transfer the process-oriented knowledge necessary for professional competence. The development of competences is evaluated by appropriate assessment procedures. Vocational education goes in line with the integration into the respective community of practice.

The (further) development of occupational profiles and vocational training programmes requires VET research and a complementing scheme of VET planning, which involves not only the public authorities responsible for education, but also experts from the respective professional associations and from the trade unions.

What is of crucial importance for this model of vocational education and training is the university education of teachers, which has to be differentiated according to occupational domains, and the pedagogical qualification of in-company trainers. It is also a part of the attractiveness and competitiveness of vocational education and training to offer opportunities for continuing education either in the course of university studies or within equivalent non-academic programmes of continuing vocational education and training.
CHANCES TO ESCAPE THE STIGMATISATION OF TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING

In many regions of the world it is only possible to escape the stigmatisation of vocational education and training by integrating TVET into the academic system and to provide it with the labels of university education. The paradigms of the knowledge society and of the knowledge-based economy sustain this international trend. To the extent that dual study programmes at universities are successfully strengthened so that important elements of the apprenticeship tradition are integrated into university studies, this might well be a feasible option, even though a quite costly one. The crucial point is to make this option attractive enough for enterprises and school leavers to have the majority of young people make their decision for vocational education. This means above all that vocational education and training must have an equal standing in the educational system and that its stigmatisation as a track for marginalised groups must be overcome. In countries where the proportion of young people who opt for vocational education as the first step in their educational career has fallen below 50 percent the first scenario becomes relevant: a roundabout way towards vocational education and training via the vocationalisation of university studies.

In countries where there is a high quality of apprenticeship training and where the proportion of young people who opt for this educational track still is 50 percent and above, it makes sense to reform this tradition and to enhance it as an equivalent entry into professional careers. This requires in particular that vocational education and training allows for a connection to university education. Graduates with vocational qualifications must be given access opportunities to university studies. Within the next ten years it will probably be possible to study at the examples of Austria and Germany whether this scenario is a realistic option or whether the international trend towards a stigmatisation of TVET and the accelerated academic drift become so strong that even in these countries the systems of vocational education and training become a gathering place for those marginalised young people whom the OECD would then have to classify as a risk group.