

Reinventing Higher Education Toward the Innovative University of the Future

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Folie (1) *It's a real good feeling to be together with friends talking about*

- What I want to start with are the challenges we are faced with*
- 1 **The knowledge-based society - challenge to the higher education system** *by what we call*

2 Presently, in Europe we can witness a vivid discussion concerning the requirements for a renewal of the higher education system. However, in many respects it does not become clear what the discussion is all about. I personally see the really new challenge in a fundamental change in our society. It is not just the transition from the industrial society to the services society or the information society or in fact any other characterisation based on individual, economic or technical categories. Rather, it is a matter of a fundamentally new way in which knowledge is used in our society. Whereas in previous centuries personal experience - or the experience gathered personally by others and then passed on - was the guideline for professional, political and private action, scientific findings and methodologies have come to provide the grounds on which our decision-making processes are based.

3 There is hardly a political decision taken today without a host of scientific expert opinions. Companies use scientific methods to analyse the wishes of consumers, market changes and market trends. Work places are designed in line with scientific findings.

But also our personal and private actions are in need of scientific and technological know-how. Who dares sign a contract these days without legal advice? In the past, this was done by way of a handshake and on the basis of personal trust. Who dares declare himself fit for work without medical consultation. In the past, this decision was taken by grandmother. Who dares writing letters without advice from computer experts? At the very latest this technological know-how will become relevant when the computer or the printer breaks down. It is evident, our society relies upon findings and methods of the sciences.

All ~~different~~^{the} countries in Europe are on the point of becoming a knowledge-based society. In fact, this is causing the increasing demand for study places at our institutions of higher education. The institutions of higher education are the only places where we can provide this basic knowledge of scientific methods and findings, necessary in daily life either for one's own use or for the assessment and classification of the scientific findings of others.

Today and in a knowledge-based society, it is an impérative that broad segments of the society receive some kind of college education. This, then, is the actual revolution which also challenges the ways we think of and manage our institutions of higher education. It is obvious that within a knowledge-based society institutions of higher education have to serve purposes differing from those goals which the traditional university - Humboldt's university - pursued.

④ Only recently, the German Minister of Science and Education drew public attention to this fact when declaring the death of Humboldt and of his university. To many, this gesture was almost as scandalous as Nietzsche's famous proclamation of the death of God - and the consequences are indeed as far-reaching. Proclaiming the death of Humboldt amounts to nothing less than proclaiming the end of our traditional ways of thinking the university and the business in which it is involved.

Hence, it comes as no surprise that during the subsequent public discussion much criticism has been leveled against this proclamation of Humboldt's death. And yet, there can be no doubt: With the expansion of our higher education system it has increasingly become impossible to maintain the ideal of *Bildung* as the center around which higher education is organized. Rather, in the age of mass education, *Bildung* more and more recedes behind *Ausbildung*, behind professional training ready for application. As a result, the disinterested paths of learning that in the past lead the individual toward moral and ethical perfection are exposed to and replaced by professional and economic interests. And to the extent to which professional training moves toward the university's center, the traditional grounds for learning, for doing research and for teaching come to be replaced by requirements of the State accompanied by a strong governmental control over the entire higher education system.

It is clear, in such a situation we have to rethink the university's goals and mission. This appears to be the prerequisite for what ~~we~~^{we} are trying to do today, within the framework of this symposium, i.e. thinking about the „innovative university“ of the future. Hence, before turning to my suggestions of the constituent elements in a truly „innovative university“, I would like to express some ideas concerning our concepts of the university and its role in society today. What will become clear, is the fact that as yet we lack a common understanding of the university's function, role and mission. As it turns out, this is the real, the fundamental problem that haunts the public discussion on the reform of our higher education system.

2 The University and its Representations

Historically there are at least four different ways of thinking the university. These different views reflect different models and visions about what a university is and how it works.

2.1 The University as a Republic of Scholars

In the first instance, the university is seen as a Republic of Scholars in which carefully-selected academics do research work and are responsible to their own conscience only. Perceiving themselves as being experts in their field, they might accept evaluation by peers only reluctantly. Deriving their motivation from their own interest in the subject and expecting the same intrinsic motivation from their students they don't expect special reward for their work. They do, however, expect to be funded by society. As supposedly nobody from outside of the academic world is able to evaluate their work, nobody is considered to be able to question their own assessment of their financial needs.

2.2 The University as an Interest-Group Based Institution

During the so-called democratisation of the institutions of higher education in the early 70s, universities and politicians have established the participation of different groups in the decision-making process. Whereas originally the professors, the academic and non-academic staff and the students represented the constituent groups, in recent years a number of additional groups such as the physically disabled, certain cultural minorities and women have announced their interests and managed to gain influence on decision-making. Everyone in these groups I've mentioned claims to be able to solve the university's problems, if only the respective group had the majority of votes.

In reality, however, the aims of the different groups differ widely from each other. Whereas the professors, for example, are primarily interested in improving their facilities or in doing more research, the students attribute great importance to the quality of teaching and to prospective professional possibilities in the labour market. The medium-level academic staff, such as lecturers and tutors are highly interested in gaining the qualification necessary for being nominated into a chair as it provides them with a better reputation and long-term social security. The non-academic staff is preoccupied with the reduction of stress factors or salary-regulations. As you can see from this brief insight it is more or less impossible to harmonise all these different goals in a democratic decision-making process. And unfortunately those elected as group representatives are not necessarily interested to find the best solution for all groups involved.

2.3 The University as a "Second-Level-Government-Institution"

As the universities have increasingly shown to lack the indispensable capacity of decision-making, they have more and more been regulated by the ~~Länder-based~~ Ministries of Culture and Education. So in fact our universities have turned into second-level government institutions. According to this model funding is not a question of needs but rather of financial capabilities. Linked to the "size of the cake" budget headings are fixed year after year. This implies in some respect the loss of the traditional autonomy of the university as an institution mainly independent from governmental influence. Laws are no longer a mere frame of reference for action, but have increasingly become decisive instruments to control behaviour. Acting according to the existing rules has a higher importance than achieving new goals. Regulations take precedence over output.

2.4 The University as a "Service Organisation"

The fourth model is based on understanding the university as a service institution based on the two products "teaching" and "research". According to the principles of a free market economy, these two products need their special market-section. Within that model university students represent customers and funding is decided by market forces.

Especially in Germany
Our current crisis is not produced by one model or another. Actually, the main problem we are facing today is that all of these models exist at the same time leading to different decision-making processes, goals, organisational structures, rewards and punishments. As a result, these competing understandings of how higher education in a modern society ought to be organised produce a completely dysfunctional system and paralyse the necessary reform process in many countries. *May be that it also stresses the connections between JGU as group of Innovative Universities.*

3 The Innovative University: A New Vision

Hence, there is a strong need to rethink the university and its role and function, its role and mission within the knowledge-based society of the future.

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To be sure, there can be little doubt that the new European university, like before, must be a state institution, or at least a predominantly state-financed institution. This, then, is also my point of departure for thinking the university of the future as being

- autonomous,
- academic in its mission,
- competitive,
- profiled,
- and economically viable.

3.1 Autonomous university

The autonomy of the university is almost a buzz word for us into which new life has to be injected. The question of autonomy touches upon the organisational structures within a university on the one hand, and upon the relationship between state and university on the other hand. It seems to me that individual autonomy especially in German universities has been extended to the point where it borders on abuse/while corporate autonomy has been largely undermined by the state. Autonomy does not mean that scientists can claim unlimited individual rights in the name of scientific freedom without any collective responsibility (individual freedom of science). Higher education must be more than an accumulation of users of a common central heating system. Autonomy also has a corporate component.

3.1.1 Corporate vs. individual autonomy

It is beyond contention that science needs creativity. Creativity can develop in an individualised space, free of limits and constraints, only. This presupposes a high degree of freedom for the individual scientist.

And yet, too much emphasis on the individual freedom of science lead to the generally bemoaned deficits in the organisation of our studies like uncoordinated courses and examination dates, overlaps in curriculum and content, to name but a few. The same is true for research, which has become so highly specialised that hardly anybody feels capable to consider the holistic, interdisciplinary problems of mankind.

The freedom of research and teaching is often misunderstood as the freedom of the individual. Instead it should be emphasised as the freedom of the higher education establishment or the department vis-à-vis the state to design its own study courses and research programmes. This undoubtedly also requires individual freedom - but clearly focused on the common objectives. We cannot afford any academic individualism.¹ We shall have to return to a well-balanced relationship between individual and corporate autonomy. Ultimately, this will make people work *for* the university rather than merely *in* the university, as this is often the rule today.²

a term which Frans brought into discussion

¹ van Vught describes this as "academic individualism which brings along a disinterest in the welfare of the broader organisation", cf. van Vught, Frans, Management for Quality, paper presented at the CRE 10th Annual Assembly, Budapest, 31 August - 3 September 1994

² The former President of the Johns Hopkins University, Stephen Muller, once characterised at least one major difference between the American and the German higher education system like this: "The American professor works *for* the university while the German professor works *in* the university."

3.1.2 Autonomy vis-à-vis the state

The strong emphasis on individual scientific freedom is certainly also caused to some extent by the limitations imposed by the state on corporate autonomy. There is an obvious interaction between the two. Considering the practice of state-intervention and state-control - especially with reference to the issue of quality assurance - the following characteristics emerge: The peculiar feature of a university in the European tradition is a system of ex-ante control operated by the state. Numerous measures taken in advance are designed to guarantee the high quality of work.

There is no doubt that this system of quality assurance ahead of time has some distinct advantages. For example, it ensures

- a high degree of homogeneity of quality without, however, necessarily guaranteeing high quality,
- the extensive individual freedom of those who have been appointed,
- the state's responsibility for the financing of higher education establishments.

The disadvantages of the system, however, are:

- the high level of inflexibility: Years go by before examination bye-laws are amended and brought into line with, for instance, new social requirements or European competition.
- an individual abuse of freedom: It is not that professors actually break the law, for example by paying little attention to teaching appointments. The abuse is rather perpetrated in the form of a subject specialisation or niche policy by the teachers, so that the learners are no longer comprehensively educated (academic individualism).
- the problems caused by a state who is no longer capable of meeting its financial obligations.

We all know that ex-ante control is no longer sufficient because

- the arrangements made in the case of appointments for 25 years or so will no longer be adequate with regard to the requirements of a rapidly changing environment
- the liaison processes to co-ordinate homogeneity are too slow and
- the state no longer meets its financial obligations with regard to higher education.

Hence, what we need in the future is a combination of ex-ante and ex-post control which focuses on the formulated objectives on the one hand and the degree to which these objectives are achieved (the results) on the other hand. Such a combination of ex-ante and ex-post control is already practised or currently being introduced in most Western European countries.

To this end, however, both, objectives and results must be transparent. The autonomous university, therefore, has the dual task of developing processes of objective formulation on the one hand and of meeting its duty of accountability to the society on the other hand. The formulation of objectives, however, causes problems for the universities, especially because their objectives are so heterogeneous, often diffuse, and as a rule not very operational³ Hence, there is a need to implement decision-making structures that „organise anarchy“⁴ As far as accountability is concerned, the universities will have to develop reporting systems that give an account of both the resources and the results.

3.2 University as a truly academic institution

The university of the future must be a truly academic institution. As such, it is in need of different opinion-forming and decision-making processes and structures. At the same time, there must be a balance between individual interests on the one hand and the development of joint, institutionally shared objectives and approaches on the other hand. This is how the two components, individual and corporate autonomy can be brought together in a mutually complementary fashion.

3.2.1 Management and organisational structures

Hence, what we need is an organisational structure that is capable of bringing the innovation potentials to joint fruition. To this end, it does not make much sense to design a ready-made model around the conference table. Rather, any institution of higher education should have the right to implement the organisational structure that best suits its institutional needs. Hence, there is no need to determine by law how long deans or rectors or presidents should be allowed to stay in office. These are questions that can only be answered appropriately with regard to specific needs of a university, a discipline, or a specific academic culture.

³ Cf. Müller-Böling, Detlef: Leistungsbemessung - Leistungstransparenz - Leistungsfolgen. Von der Gelehrtenrepublik zum Dienstleistungsunternehmen? in: Hochschulen im Wettbewerb, Annual General Meeting 1994 of the German Rectors' Conference, Addresses and Discussions, Halle, 5 - 7 May 1994; Dokumente zur Hochschulreform 96/1994; pp. 49 - 63

⁴ Cf. Cohen, M.D., March, I.G.: Leadership and Ambiguity, Boston, 1974

Although no generally applicable model of organising and governing a university can and should be proposed, some general principles of organisational orientation still can be formulated. The most important principle in this context is this:

Decentralised responsibility with a centralised concept involving organised co-ordination.

Decentralised responsibility means that the units on the decentralised levels (chair, institutes, departments) must be in charge of both performance and results. However, performance and results have to be integrated into the superior concepts in each case (i.e. the chair's into the institute's, the institute's into the department's, the department's into the university's). The determination of targets and the evaluation of results must take place within an organised, co-ordinated effort.

A **second** principle could be that the participation, i.e. involvement, of members of the university in the decision-making processes be determined by the knowledge and the motivation of the people involved and not by their status.

A **third** principle might be, for example, that decision-makers - be they institute heads, deans or university presidents - assume more personal responsibility. Presently, in the system of collegiate organs like in Germany personal responsibility is rather prevented.

A **fourth** principle worth considering is to actually professionalise the management on the levels of the institutes, of the faculties and of the universities. However, this takes more than fixing periods of office or job descriptions currently laid down in the law. In addition, true professionalisation requires at least different selection mechanisms, different incomes, the delegation of responsibility including accountability as well as the development of professional perspectives and/or career prospects as a dean or president.

3.2.2 Unity of research and teaching

Strengthening the university's academic character requires more than just the restructuring of internal organisational details or opinion-forming processes. What has to be underlined as well - and this has increasingly been lost sight of recently - is the need to further develop the principle of the unity of research and teaching - one of the most important principles of Humboldt. Universities cannot be reduced to mere teaching establishments or vocational colleges - although the temptation to do so may be strong in times where a great number of students are enrolled in university programmes. And yet, the unity of research and teaching needs to be seen more strongly as referring to the university as an institution. It is the university as an institution - and not primarily its individual members - that embodies the unity of research and teaching. This refers back to my earlier remarks on the distinction between corporate and individual autonomy.

3.3 Competitive University

Turning now to the issue of competitiveness the first thing to note is that competition in the field of science is not exactly a recent invention. Competition has always been a force of motivation for every single scientist, for example to do research better or to discover things earlier than others.

In Germany there has always been competition among institutions of higher education for staff and for research achievements. However, competition in this field will only come to full fruition if and as soon as it also includes competition in the field of teaching. There is without any doubt a lack in the German Higher Education System. Differences in the curricula and the performance of the individual universities has to be made transparent for students and society. At the same time, it must be rewarded appropriately, for instance, by allocating funds on the basis of merit.

Competition among institutions of higher education is only possible if they are able and allowed to develop a unique and unmistakable profile.

3.4 Profiled University

When it comes to the high-profile higher education facility we have to relinquish the notion of universality in the sense of the unity of all sciences. This is something we do not find difficult to do. In fact, this separation has long since been completed - at the latest when the technical colleges were founded at the end of the last century.

Yet, in Germany the notion of the high-profile higher education institution also requires to get rid of two of the basic premises on which our higher education system is built: the idea that all high school certificates are of equal quality and thus grant the same right to anyone who holds such a certificate to pursue any kind of academic studies; and the idea that there are no differences in quality among different institutions of higher education.

Of course, none of these basic premises has anything to do with reality. And yet, a great deal of co-ordination effort is currently put into making the system work according to these fictional fundamentals. [Framework examination bye-laws are prepared for all subjects in the Federal Republic of Germany. This requires an incredible amount of work by a large number of official bodies whose goal is to secure a high level of identical quality throughout the higher education system. This does not exactly prevent performance competition, but it does not do much to promote it either.]

3.4.1 Profiles

It is obvious that we need to move toward a system of higher education that promotes the rise of different institutional profiles. This means that institutions of higher education have to find strategic positions within the environment of the community of national and international higher education. Each department as well as each institution as an integral whole has to develop a distinct profile. The resulting profiles are shaped by different goals and missions, which the universities try to pursue.

3.4.2 Transparency and evaluation

And yet, different profiles will only have an effect on competitiveness if they are made transparent. This requires evaluations that primarily focus on quality as well as comparative studies that focus on issues of quantity. Both procedures are equivalent to inter-company comparisons in industry or to college rankings as they are common practice in the USA or in Great Britain.

3.5 Economically viable higher education establishments

The economically viable and economy-minded university should of course not be forced to make a profit or be exclusively placed under the constraints of economics. But it should all the same make an effort to optimise the ratio between expenditure and funding. In addition to the traditional input considerations, we thus need an assessment of the output in the sense of an individual and societal evaluation of the performance. We cannot but view costs in relation to performance. To this end we need

- to develop cost awareness

- budget flexibilisation and
- a set of funding tools, which brings more independence from state funding.

4 Outlook

There would be a lot more to say about these constituent elements of the university of the future. In particular, there are still plenty of problems to be solved. And yet, I believe they form an holistic model appropriate to indicate the direction in which our universities will have to move in order to become the „innovative universities“ that we need in the future.

I called this a new vision of universitiy being viewed
 as autonomous
 academic in its mission
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 profited and
 economically viable.

but this is only the rough description of a model, which
 has to be realized in current university-governance.

That's your task as European university-leaders.

I think with the network of innovative universities
 you are on the right way, doing your job for the
 forthcoming century

Thank you for your kind attention