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# Higher Education

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## Governance & Policy

#### Higher Education in Economically Advanced Countries: Changes within Recent Decades

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#### Abstract

The rapid increase of student enrolment during the 1960s and 1970s in economically advanced countries triggered intensive discourses about necessary structural changes of the higher education systems and possible concurrent functional changes , The varied terms used to describe major expected, desired and realized changes indicate a variety of value judgements: Diversification, vertical stratification and "massification" of higher education as well as "educational meritocracy", "knowledge society" and "highly educated society". The changing challenges felt and the search for new solutions created also a favourable climate the emergence of higher education research, which aimed at better explanations and for more empirical evidence. During these decades and during the subsequent decades, other similar challenges were felt in most countries: Changes in the relationships between higher education and the world of work, changing expectations and conditions as regards the academic profession and increasing internationalisation of higher education. Altogether, however, the similarity of perceived challenges did not lead to a substantially increasing similarity of higher education policies and reforms within the individual countries. Also, recent discourses about the future of higher education do not suggest a growing global convergence of higher education, because value judgement continue to differ substantially: Internationalisation is seen as hegemonic instruments by some actors and as a way towards cosmopolitan values by others; the "knowledge society" is viewed as reinforcing or calling academic quality criteria into questions; strong managerial power is perceiving as supporting or endangering academic creativity; the race for "world-class universities" seems to have different consequences for the quality of higher education in general. As a consequence, international comparison of the developments of higher education does not suggest any single best solution, but is most valuable as an eye-opener for alternatives.

Keywords: Higher education expansion, diversification, knowledge society, internationalisation, academic profession

#### Introduction

In looking back at the development of higher education in economically advanced countries, we can identify three major stages after World War II. They might be characterized as stages of post-war consolidation, expansion and steering for targeted purposes.

- 1. Immediately after World War II, higher education systems in the various countries were challenged to consider their overall character and to consolidate again after all the problems occurred during the war time.
- 2. In the 1960s and 1970s, higher education systems had to find a new structural configuration and a new functional self-understanding as a consequence of the massive increase of student enrolment as well as a consequence of the success of the student protests in challenging many university traditions.
- 3. In the late 1980s and 1990s, higher education experienced further growth as well as the expectation to serve society more directly than in the past through teaching and research, as it is vividly expressed with the term "knowledge society". This functional change accompanied by dramatic revisions of the steering system of higher education notably through an increasing role of assessment and evaluation activities and through an increasing power of the

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university management along a shift of the role of government to less detailed regulation and more strategic positioning.

In the second and the third stages, key actors in the higher education system and key experts often have asked themselves: Can international comparison help us to generate concepts for improvement, and will the higher education systems in economically advanced countries become more similar in the wake of the search for the best solution?

The author of this article has been active as higher education researcher for more than 50 years and, thus, has been in the privileged position to observe closely and interpret the changes of higher education and research in the second stage and the third stage named above (Teichler, 1988; 2007). The aim of this article is to summarize the major functional developments of higher education during these periods (see more detailed information in the three encyclopedias: Clark & Neave, 1992; Knowles, 1977; Shin & Teixeira, 2020) as well as to point out select operational changes, such as the structures of the system, the links between higher education and employment as well as the views and activities of professors.

#### The Emergence of Higher Education Research

Before summarizing the above-named developments, a few remarks about higher education research might be appropriate (cf. the overviews in Altbach, 2014; Clark, 1984; Neave & Teichler, 1989; Nitsch & Weller, 1970/1973; Teichler, 1996; 2015). In the 1960s, when functional changes of higher education became visible in the wake of the rapid expansion of student enrolment, higher education research was only a visible area of research in a very few countries. The first report on the state of higher education worldwide, actually initiated by UNESCO, was published in the early 1970s (Nitsch & Weller 1970/1973). It showed that scholars from various disciplines in many countries had undertaken analyses of higher education occasionally, but professorships specialized on higher education existed only in a few countries (e.g. the United States, the United Kingdom, and Soviet Union) at that time.

In Germany, we used to say at that time: The German professor conducts research on everything – except on his or her own environment, i.e. the university. Practitioners' observations and some statistics were the only sources available. During the 1960s, there were signs of increasing interests in systematic knowledge on the changing function of higher education in the wake of expansion, and a controversial debate spread about the modes of diversification of higher education as well as about the potential benefits and problems due to the increasing number of university graduates. In Germany and some other countries, the student protest of the late 1960s played a crucial role. The key actors and observers of higher education did not share the protesting students' philosophies, but the protest triggered a widespread belief that there are real problems of higher education which call for careful analysis and for substantial reforms. In Germany, the first reaction in the early 1970s was to establish centres for higher education didactics at some universities primarily in charge of services to improve teaching and learning. The first position of full-professor for higher education research in Germany was created not earlier than 1978: Actually, the author if this article had the honour to get this professorship at the University of Kassel.

Prior to the 1970s, higher education research was most visible in the United States. Notably, many departments of education had one or two professor positions, and many universities had units for applied research on their university – so-called "institutional research". Thus, it does not come as a surprise to note that the early development of higher education research in Europe and other economically advanced countries was strongly influenced by the preceding research activities in the U.S. Notably two U.S. scholars with a strong interest in international comparative analysis had an impact on the emergence of higher education research in other countries: Martin Trom notably with his structural development model of "elite", "mass", and "universal" higher education (see Burrage, 2010), and Burton R. Clark most visibly with his organizational model of the university shaped by the respective powers of state, market and academic oligarchy (Clark, 1983).

A growing international interest in higher education research was reflected by the decision of British scholars to create the journal "Higher Education" in 1971, which later became the most highly reputed journal of higher education research. During the first two decades, however, only a few authors from non-English-speaking countries contributed to it. Only in the 1990s, it became a genuine international journal with contributions from a broad spread of countries (see Maassen, 2000). Similarly, scholars in this field communicated primarily within their country or just looked at the U.S. Many scholars believe that the foundation of the Consortium of Higher Education Researchers (CHER) in 1988 was a major step towards genuine international communication and networking (see Kehm & Musselin, 2013). Nowadays, higher education research is fairly well established in a substantial number of economically advanced countries, and international cooperation comprising many countries is working well in this domain (Teichler, 2017a).

The U.S. scholar Philip G. Altbach initiated various "inventories" of the state of higher education worldwide. The authors of the third inventory undertaken in 2013-2014 identified 217 centres/institutes of higher education research worldwide, 277 study programmes (with about the same number of master programmes and doctoral programmes) and 280 journals or similar publication formats for higher education research (Rumbley et al., 2014). They estimated that the total number of higher education researchers linked to these academic units and programmes was about 6,000. They knew that such an inventory would not reach all units and programmes all the over the world, but one could assume that the total number of higher education researcher active in academic positions was probably less than 10,000 at that time.

In addition, there might have been a similar number of persons linked to university administrations or agencies outside these institutions active in higher education policy, who had been involved researchlike analyses on higher education. Moreover, we can estimate that the total number of scholars, who consider themselves to be representatives of disciplines, e.g. education, psychology, sociology, political science, economics, history, etc., but conduct regularly analyses on higher education, might be as high or even higher than the numbers of scholars considering research on higher education as their academic identity.

#### The Changing Character of Higher Education in the Process of Growing Enrolment

Higher education expanded substantially over the years. In the 1950s, only about 5% of the respective age group on average in economically advanced began to study at universities. Five decades later more than 50% began to study at "institutions of tertiary education". The terms changed as well as the characteristics of institutions and possibly the quality of the programmes, but there was undoubtedly an enormous growth. Three questions were constantly on the agenda:

- How do the functions of higher education change in the process of expansion?
- To what extent are there common features for all higher education institutions and programmes within a country, or to what extent and how does higher education become more diverse in the process of expansion and functional change?
- How different do higher education systems remain between countries, and to what extent are there pressures or possibly real movements towards a similarity of higher education systems all over the world?

Various historical analyses suggest that four major types of higher education systems had developed in the 19th century and the first half of the 20th century (see Ben-David, 1977):

- The German Humboldthian system underscoring a strong link between research and higher education and being characterized by a strong position of the individual professors and by a largely research-influenced teaching.
- The English system with a stronger emphasis placed on teaching and learning and on personality development through education as well as characterized by a strong role of academic collegial bodies.
- The French system with a stronger divide between teaching and research-oriented universities and the Grandes Écoles striving for elite professional training.

- The U.S. system being partly a creative mix between the German and English approaches and being partly distinct from these models in terms of a greater vertical diversity and of a stronger power of the university management.

Of course, we have to admit that these analyses looked primarily at the Western world of economically advanced countries. They tended to overlook that the Soviet Union created at model of its own and had enormous influence on a substantial number of other countries. Thus, it would have been appropriate to name five major types for the period from the 1950s to the 1980s.

Immediately after World War II – in the first of the three stages named above - discussions spread whether it was time and whether there was the opportunity of changing higher education substantially. These discussions was most elaborate the countries in which had lost the war. In Japan, reforms were pushed by the occupational forces in the direction of the U.S. model. In Germany, in contrast, the view gained ground that the old German higher education had been "basically healthy" and should be restored in its key characteristics. Discussions in both countries were influenced by international comparison, but obviously no strong need was felt in this first stage of development that all the higher education systems in all economically advanced countries should become more similar.

In the 1960s and the 1970s, we could observe a substantial expansion of higher education usually measured at that time as entry rate to higher education of the typical age group. Actually, the entry rate surpassed 30% in some countries and 20% in the majority of the economically advanced countries during the 1970s (see OECD, 1974).

The debate about the socio-economic causes and the socio-economic consequences of this wave of expansion was quite similar across Western countries, and the OECD became a major forum of this debate (see for example OECD, 1974; 1998). Most economic experts observed an increasing "manpower demand" for highly qualified persons and a substantial financial reward for investments into education – both for the societies as a whole and for the individuals. Many sociologists pointed out there was a growing "social demand" for higher education due to a decline of traditional social inequality of educational opportunity and due to an increased appreciation of high educational attainment as personal, cultural and social value. There were cautious expert voices as well, pointing at signs of "over-education" and growing "mismatches" between demand and supply on the labour market as well as on signs of persistent inequalities in higher education.

As regards the patterns of the higher education system and the functions of higher education one interpretation became very popular that a growing similarity of higher education system across economically advanced countries was on the agenda. The U.S. higher education researcher Martin Trow (1974) argued in the early 1970s, as already mentioned above, that higher education systems with enrolment rates up to 15% could be characterized as "elite higher education". When the enrolment rate surpasses this mark, a second sector of "mass higher education" emerges along the traditional "elite higher education", and with an eventual enrolment rate beyond 50%, "universal higher education" would surface as a third sector.

According to this concept, higher education systems all over the world were bound to diversify in the process of expansion: from a relatively homogeneous elite system to a somewhat diverse elite and mass system and eventually to an extremely diverse elite, mass and universal system. Thereby, the terms referred to the students' origin, the institutional pattern of higher education and the social functions of higher education. Trow (1974) assumed that increasing diversity of higher education would serve the growing diversity of students' abilities, motivations and job prospect.

In reality, however, "elite higher education" has not been so homogeneous in the past in all countries. In Germany, for example, the institutional and biographical hierarchy has been flat, and all universities and all university professors were in charge of both research and teaching and could supervise doctoral candidates. In the U.S. and in Japan, in contrast, there had been a highly stratified higher education system already at times, when the entry rate was less than 5%. In the 1960s and 1970s, the already

existing hierarchy in the U.S. and Japan could grow in the process of massification without substantial reforms (see Teichler, 1988). In various European countries, however, a decision was taken to diversify through the establishment of two sectors of higher education (see Neave, 2011). For example, through the upgrading of higher vocational schools to "Fachhochschulen" in Germany, but the university sector as such remained fairly homogeneous. In sum, one might argue the higher education systems in economically advanced countries did not become much more similar during that period (Teichler, 1988).

In the third of the three stages of development, i.e. since the late 1980s in some countries and since around 2000 in some other late-coming countries of reform such as Japan and Germany, similar directions of changes could be observed (see, for example: Altbach, Reisberg, & Rumbley, 2009; Deem & Eggins, 2018; Enders & Fulton, 2002; Gornitzka, Kogan, & Amaral, 2005; Krücken, Kosmützky, & Torka, 2006; Sarrico et al. 2016; Vukasoviv et al. 2012;. Zgaga, Teichler, & Brennan, 2013):

- The increase of student enrolment continued, and many countries moved towards a concept of tertiary education, i.e. a closer link between traditional higher education and short vocationally oriented study programmes (see OECD, 1988).
- More emphasis was placed on research as key function of higher education (see, for example: Clancy & Dill, 2011).
- Both, research and teaching was expected to become more visibly useful to economy and society. This visible in discourses about the so-called "employability" of study programmes (Yorke, 2007), about a closer link between research and "innovation" (see, for example: Meek, Teichler, & Kearney, 2009), and overall about the role of higher education in the "knowledge society" (Välimaa & Hofman, 2008).
- "Ranking" studies become popular internationally, and top universities considered themselves increasingly as competitors on the way towards "world-class universities" (see, for example: Hazelkorn, 2011; Kehm & Stensaker, 2009; Shin, Toutkoushian, & Teichler, 2011).
- We noted in many countries moves towards less detailed controls of higher education by government ("deregulation") and a strengthening of the university management (see, for example: Amaral, Meek, & Larsen 2003; Paradise, Reale, Bleiklie, & Ferlie, 2009).
- As a formal step towards greater similarity of higher education systems, we noted a joint decision of many European governments in the Bologna Declaration of 1998 to introduce a bachelor-master structure of study programmes and degrees also in those countries, where the first degree had been in the past equivalent to a master degree (see, for example: Curaij, Matei, Pricopie, Salmi, & Scott, 2015; Dienel, 2019).

There were clearly more higher education reforms in economically advanced countries towards greater international similarity in this third stage of the development than in the previous stages. Yet, national systems of higher education in economically advanced have remained quite different in many respects, for example in:

- the proportion of students moving on to master programmes and in the rate of persons eventually awarded a doctoral degree,
- the proportion of institutions within the higher education system characterized by a close link between teaching and research,
- steep vs. flat hierarchies of reputation and quality between the universities,
- the degree of similarity or of distinctness of curricular thrusts in higher education,
- the role played by international mobility of students and academic staff, and
- the power exercised by university management vs. the academics' influence on key decisions.

#### The Changing Character of Higher Education and the Changing Relationships between Higher Education and Society

We could observe controversial debates about the benefits and detriments of the long-term developments of higher education at its relationships to society over time. In some instances, certain

catchy terms were coined to characterize these developments, while in other instances, certain views spread without being summarized by an overarching term.

#### **Diversification of Higher Education**

First, major changes have been often summarized as "diversification of higher education". This view was supported by the basic assumption of the sociological system theory that large systems tend to diversify. According to the famous model presented by Martin Trow (1974), diversification of higher education was beneficial both for higher education and society: "mass higher education" served the talents, motivations and job prospects of the additional students better than an enlargement of "elite higher education", and it help preserve the strength of "elite higher education" for parts of the higher education. Actually, observers agree that higher education systems have become more diverse in recent decades, but the extent of diversity and the modes of diversity developed differently across countries (see Teichler, 2007; 2008).

#### **Vertical Stratification of Higher Education**

Second, the structural development of higher education is often described as a trend towards steeper vertical stratification (see Teichler, 2017b). Many observers of the development of higher education in the course of expansion, however, voiced the critic that higher education diversified only in vertical terms: In terms of levels of financial resources and terms of the quality of teaching, learning and research. Some institutions, some academics and some students seemed to keep high resources and high academic quality or even to increase the resources and quality as a consequence of competition or as a consequence of elitist policies to increase privileges on the top. The majority of losers in this process seemed to imitate those on the top. This critique often was combined with a call for a policy to stimulate a mix of vertical and horizontal diversification and thus to strengthen a co-existence of varied substantive profiles of higher education.

#### "Massification" of Higher Education or Other Options

Third, the term "massification" or similar terms often surfaced in the discussions about the consequences of higher education expansion. Such terminology intends to blame expansion to lower the overall quality of higher education and just adapt the potentials and desires of the masses.

Some observers point out in this context that the expenditures per students decreased in many countries in the process of expansion and the working conditions for scholars worsened on average. In contrast to the view of the co-existence of "elite" and "mass" higher education, this critique of massification concluded that elite higher education would not be fully preserved, but rather put at risk by the needs to serve the masses. Other observers suggest a variety of profiles along with an only limited vertical stratification could be the best for modern societies based on widely knowledge and understanding.

#### **Educational Meritocracy**

Fourth, many scholars came to the conclusion that the growth of the enrolment rate was possible as a consequence of a trend towards educational meritocracy: The number of students could grow, because education became more open, whereby barriers for traditionally socially disadvantaged diminished; hence, more young persons were willing to study because educational achievements were increasingly rewarded through high income, high positions in the employment system and high social status in general.

Some observers considered this a process toward the realization of a modern, just and democratic society (see Bell, 1974). Others argued that a meritocratic society could reinforce a fierce race for success and could even justify the hardships of the losers in this competition. Therefore, a meritocratic society is not viewed by all as the best educational society (see the summary of arguments in Brennan & Naidoo, 2008): Rather, education would have to be protected from "over-competition" and "over-reward". Similarly, a meritocratic society is not viewed by all observers as fair; rather, a modern society would just have to have a combination of meritocratic components and welfare components for the less successful ones.

#### **Knowledge Society**

Fifth, "knowledge society" is a popular term since the 1990s (Stehr, 1994; Välimaa & Hoffman, 2008). In contrast to the terms named above, knowledge society does not primarily refer to the students' and graduates' educational attainment, but rather to the intellectual sophistication of research, production, and services. The knowledge-based technology is seen as substituting many areas of work based on physical labour, and knowledge-based information and regulatory systems as substituting routine white-collar work. Life seems to become more comfortable and sophisticated through knowledge-based technology and information, whereby IT (information technology) plays a major role.

The terms "knowledge society" indicates technological, economic, social and cultural progress, but concerns are expressed as well that part of the population might be excluded. Moreover, some expert underscore that danger that teaching and learning as well as research in higher education might be put too much under pressure to be useful for the knowledge society that freedom might be curtailed for non-conventional and purpose-free learning and research and some unexpected creativity might be lost (see the discussion in de Carte, Engwall, & Krücken, 2018).

#### **Highly Educated Society**

Sixth, as already pointed out, the author has coined the term "highly educated society" (Teichler, 1991). It suggests that that the strongest impact of expansion of higher education is the "wisdom of the many". In the past, highly educated persons were employed knowledge-based jobs such as medical doctors, engineers, lawyers, university professors, top managers, etc., and they directed and supervised the professional work of others. The single most impressive effect of the expansion of higher education might be the reduction of the knowledge gap between the traditional top professionals and the middle-level occupations. The knowledge base of a nurse becomes closer to that of a medical doctor, and that a technician to that of an engineer, etc. Journalists understand better what researchers think and do. Patients understand doctors and customers those delivering technology and services. The knowledge hierarchy becomes flatter, and decisions of the many can rely more often on substantive understanding. If the society remains an achievement society, social hierarchies ought to become flatter.

As already pointed out, this is certainly in contrast to the current popularity of university rankings and the efforts in many countries to strengthen primarily "world class universities". The moods and efforts in favour of improving the positions of the top universities of one's own country are as a rule based on the belief that technological progress, economic success, social well-being and cultural enhancement of a country largely depends on the quality of the top 1% or 2% of institutions, which are assumed to comprise the top of the higher education system. There are good reasons challenge this assumption. For example, statistics on the "academic productivity" of scholars per one million inhabitants suggest that countries with a flat quality hierarchy of universities are more successful than those with a steep hierarchy. But a flat hierarchy of the competencies within the total population even might lead to a completely new character of a modern society.

#### **Select Features of Higher Education**

Higher education research can address the overall character of higher education in its substance, in its institutional patters and its organizational characteristics. In doing so, researchers tends to communicate with key policy makers and practitioners, who want to understand the current situation of higher education and its problems and want to contribute to future improvements. The role of research is not shaping the practice directly, but rather to enhance the conceptual basis and the systematic empirical knowledge on higher education.

The author of this presentation has summarized above the development of higher education in recent decades by both drawing from conceptual reflections and comparative empirical knowledge, the latter however without explicit reference to detailed empirical findings. The subsequent remarks, however, should be more closely linked to empirical observations.

The author has had the privilege of being involved and often had playing a leading role in international comparative empirical projects. This was the case notably in three areas.

- Two major international comparative surveys of university graduates conducted in a dozen and more countries actually undertaken in 1999 (Schomburg & Teichler, 2006) and 2005 (Allen & van der Velden, 2011).
- Three major international comparative surveys of university professors conducted in more than a dozen countries actually undertaken in 1992 (Altbach, 1996), 2007-2010 (Teichler, Arimoto, & Cummings, 2013) and 2018-2019.
- Various surveys of international mobility of students and of academic staff a major comparative undertaken in the mid-1980s (Burn, Cerych, & Smith, 1990) and various surveys of ERASMUS student mobility undertaken during the first two decades of this programme (Janson, Schomburg, & Teichler, 2009; Teichler & Maiworm, 1997).

Subsequently, these three thematic areas will be addressed. Certainly, the major discourses about changes of higher education addressed some other themes as well, but one can demonstrate more clearly the extent of common or varied trends across countries in areas, in which substantial comparative analyses provide evidence.

#### **Higher Education and the World of Work**

When the expansion of higher education became a key policy issue around 1960, discussions focused about the consequences of this expansion for the relationships between higher education and the world of work. Initially, many actors and experts reacted optimistically: They expected a relatively harmonious link between higher education and the labour market, but after a while, pessimistic views spread. The controversies between such optimistic and pessimistic views have persisted up to today, even though some arguments and perceptions have changed (Teichler, 2009; 2016).

- According to optimistic views, the demand of the employment system for highly qualified labour was bound to grow. Additionally, the increasing supply of graduates from higher education was expected to have a stimulating effect for the economy. As a rule, countries investing strongly in education could expect higher economic growth, and individual investment in education mostly seemed to pay off in higher salaries (see various contributions in Hanushek & Woessmann, 2011).
- According to pessimistic views, substantial expansion of higher education would lead to "over-education", because the number of job requiring a university degree does not grow as much as the number of graduates. As a consequence, an increasing proportion of graduates would have long times of job search, some eventually would get a lower position than expected and some even would end up on very low jobs or completely unemployed. Moreover, fear spread about an increasing "mismatch" between higher education and employment, notably between the graduates' field of study and the professional area of work (see Büchel, de Griep, & Martens, 2003).

Actual observations and debates differed strikingly between countries. Of course, optimism was more frequent in countries with a considerable economic growth. Apart from that, concerns about tensions between the developments of higher education and those of graduate employment and work were more pronounced in countries, in which higher education was predominantly considered to be specialized training through specific fields of study to prepare for specific professions, such as in Germany and France. In contrast, a more flexible adaptation of the labour market to rising student numbers was expect in countries, in which higher education predominantly was viewed as a general preparation for broad occupational areas, such as in Japan and the United Kingdom.

The first international comparative survey on employment and work of university graduates, conducted in 1999 of those graduating in 1995, confirmed moderate differences in those respects, but altogether showed that these differences between countries of the more specialized than approach of study programmes and those with a more general approach were smaller than expected (Schomburg & Teichler 2006). This might be illustrated with the cases of Germany and Japan.

The survey showed that graduate unemployment longer than the initial search period was rare. Only 1% of the Japanese and 2% of the German graduates were mostly unemployed over the first three or four years; high rates were reported only from countries with substantial overall unemployment, e.g. Spain and Italy. The job search period lasted in both countries about six months, whereby graduates in both countries contacted slightly more than 20 possible employers. 16% of the German and 20% of the Japanese graduates considered the level of their job as inappropriate to their level of education, i.e. too low. Only 23% of the German graduates but 47% of the Japanese graduates stated that they had little use on the job of their knowledge acquired during the course of study. Finally, 28% of Japanese, but only 12% of German graduates assessed their employment and work situation as dissatisfactory.

As one might expect, the role of the reputation of the individual university was viewed by the graduates to have been a more important recruitment criterion in countries with a highly stratified higher education system, but, again, the differences were smaller than expected. 41% of Japanese graduates as compared to 16% of the German graduates perceived the reputation of the university as a major criterion of their employer to hire them, while 28% vs. 42% named exam results as highly important and 32% vs. 51% the field of study or the area of specialization.

While the debate on the relationships between higher education and employment had focused initially on structural features, such as level of educational institution, type a reputation of higher education institutions, fields of study and occupational categories, etc. attention moved over the years more towards the character of study programmes, the curricula and the competences acquired by students. For example, the majority of the European graduates – in contrast to a small minority of Japanese graduates - reported that employers prefer to recruit graduates who had experienced internships or had other work experiences during the course of study which was related to their field of study or to the future occupation.

In the 1990s the view spread in many countries that university should take more care about the "employability" of their graduates, i.e. to design the learning processes in such a way that the students were prepared in more targeted way for employment and work (see Yorke, 2007). However, the views varied strikingly between countries and between disciplines, whether the aim would achieve best through broader or more specialized programmes, through emphasis on academic matters or through more work experience, through more theoretical or through more applied programmes, etc. Moreover, some observers expressed concern that universities striving for more "employability" might educate graduates in a too conventional way and not enhance the interest in critical thinking, in new surprises in the fields of study and in innovation (see Teichler, 2018).

In the first decade of the 21st century, public debates about the relationships between higher education and the world of work were characterized by increased attention to the output of learning in higher education: Which competencies should be strengthened through teaching, learning and curricula, and what competencies were actually attained at the time of graduation (see Blömeke, Zlatin-Troitschanskaia, Kuhn, & Fege, 2013)? One should note, however, that the concepts of competencies to be strived for by higher education continued to vary as much as in the preceding debates – for example in the extent, to which general cognitive or personality-linked features were emphasized or knowledge and skills important for professional performance.

#### The Academic Profession

The expansion of higher education and the growing targeted expectations, which higher education was exposed to, were felt by many professors as a loss of status.

- In many countries, the salaries of professors increased only below average of all occupations.
- The number of students per professor rose, and the financial means for resources within universities needed to ensure an acceptable quality of teaching and research did not increase as much as the number of students.

- Research in higher education did not expand as much as the student numbers, and the proportion of professors rose in many countries who have dominant or exclusively teaching functions.
- Professors lost much of their power within institutions of higher education and much of their freedom of disposition through increasing power of university management, increasing short-term employment as well as the introduction of evaluation systems and incentive steering.
- In recent years, expectations grew that professors have care more for a visible utility of teaching and research, for example for a closer link between research and "innovation" and for the "employability" of their students. This also tended to be felt by academics as a restraint of disposition or even as a reduction of "academic freedom".

The international comparative surveys (Altbach, 1996; Teichler, Arimoto, & Cummings, 2013) showed that most professors adapted to the changing conditions and that the majority of them remained satisfied with their overall professional situation. However, junior academics in many countries were less satisfied – among others, because many of them have contracts for short periods and have only a limited chance to become professors eventually.

The surveys also showed substantial differences between countries as regards the nexus between research and teaching (Shin, Arimoto, Cummings, & Teichler, 2014): The majority of professors in Germany and Japan view themselves primarily as researchers who disseminate research results through teaching, which does not require specific professional competences. In contrast, the majority of professors in the U.S. and United Kingdom try to strive for a balance of the research and the teaching functions, and they take care for teaching as a demanding part of their work. Finally, the majority of professors in Latin American as well as in other economically emerging countries consider teaching as their core academic task.

The survey of the academic profession conducted in 2007 shows that university professors perceived the rising power of the university management and it consequences quite differently between countries (Locke, Cummings, & Fisher, 2011).

- For the example, about three quarters of university professors in the United Kingdom (76%) stated that the university management pursued had a top-down management style. The respective proportion was lower in other countries, but also by no means negligible: e.g. 66% in the United States and 43% in Germany.
- Only 30% of professors in the United Kingdom believed that professors have a substantial influence on faculty level to shape academic policies as compared to 50% in the U.S. and 64% in Germany.
- As regards the university level, only 12% of university professor in the United Kingdom perceived such an influence In contrast to 25% in the United States and 27% in Germany.

The results of these international comparative surveys on the academic profession altogether show that there are challenges for higher education perceived which are similar across economically advanced countries and that there are somewhat similar reforms in higher education across countries. Thorough analysis, however, shows that enormous differences between countries persist. For example, German university leaders seem to base decision-making in higher education more often on dialogue between management and academia (see, for example: Hüther & Krücken, 2018) those in the UK (see, for example: Pringle & Naidoo, 2016). The actual climate of communication and cooperation within higher education institutions clearly vary substantially by country.

#### Internationality

Higher education, on the one hand, is not limited to national borders in many respects. The core knowledge in various disciplines is universal, and most other disciplines also border-crossing in many respects. Seeking advancements of knowledge all over the world also is by no means a new phenomenon. And international reputation of academic institutions and individuals tends to be viewed as most valuable. On the other hand, most regulatory and organizational features of higher, are shaped

strongly by national customs and rules: The organization of study programmes and degrees, the institutional setting, the career of academics, etc.

Most discourses on the international dimensions of higher education (cf. the overviews in Deardorff, de Wit, Heyl, & Adams, 2012; de Wit, Hunter, Howard, & Egron-Polak, 2015) aver the term "internationalization"; thereby, claiming that a growth of the respective phenomena is endemic. They address an enormous broad range of border-crossing phenomena. The author has argued that meanings of internationality of higher education are most widely spread (Teichler, 2004):

- Worldwide or border-crossing knowledge transfer (books, other media, etc),
- Physical mobility across countries (students, academics, administrative staff, etc.),
- International cooperation and communication (between countries, institutions of higher education, individual scholars, etc.),
- International education and research (comparative approaches, intercultural learning, socialization for international understanding, etc.),
- Also, even though might be viewed as not fitting into this catalogue: International similarity of the conditions for and features of higher education ("convergence", "globalisation", "Europeanisation", etc.), and finally
- International reputation ("world-class universities", "international quality", etc.).

Actually, most attention has been paid over years in this framework on international student mobility. The increase of foreign students worldwide registered in international educational statistics from about 300,000 in the 1950s to about 5 million is recent years, is often presented as indication of dramatic growth. However, the overall number of students worldwide increased similarly, and the rate of foreign students remained more or less constant at about two per cent.

Immediately after World War II, student mobility was advocated in economically advanced countries in order to promote international understanding. This was seen as valuable to overcome the widespread hatred before and during WW II. Thereafter, most attention was paid to what the author of this article has called "vertical mobility", i.e. to the move from academically and possibly economically less privileged countries to more privileged one. Many students from developing and mid-income countries decided to spend as the rule the whole study programme in an economically advanced country – in many instances supported financially by the host country as means of developing aid. But there was also a substantial number of students from economically advanced countries opting for a highly reputed university in another country – often in areas of natural sciences and also predominantly for a degree programme. Relatively most impressive was the finding that about 20% of doctoral degrees were awarded over the years to foreign students. Altogether, vertical mobility was not consistently viewed as desirable, because it often led to a "brain drain" – a loss of talent for the country of origin, because many of the vertically mobile students remained after graduation in the host country to work there in academia or other knowledge-based professions (see the overview on student mobility in Teichler, 2017c).

The ERASMUS programme established in Europe in 1987 (see Janson, Schomburg, & Teichler, 2009; Teichler & Maiworm, 1997). was the strongest signal for an additional wave of student mobility: Predominantly horizontal mobility, i.e. moves to a partner university abroad of similar quality in order to "learn from contrast", predominantly short-time mobility. I.e. sojourns not longer than a year, and "mass" mobility, i.e. moves financially affordable for almost everybody. As a consequence, student mobility became so popular that the ministers in charge of higher education of many European countries agreed in the so-called Bologna Declaration of 1998 to create convergent structures of study programmes and degrees across Europe in order to facilitate and stimulate mobility. In 2009, they formulated as a target for the year 2020 that 20% - on average across countries – of students graduating in that year should have spent some period or the whole period of study in another country.

Actually, the number of students from outside Europe opting for study in Europe was stimulated by these changes, not however the intra-European mobility. What is most striking, though, is the fact that

the features of internationality of higher education as most visibly student mobility remained extremely varied across countries (Teichler, Ferencz, & Wächter, 2011). For example, we might estimate that the number of graduates having had international study or study-related experience during the course of study vary nowadays among European countries between less than 5% and more than 30%.

In recent years, also efforts intensified to ensure internationality of learning for those students who are not be physically mobile across borders. For example, many university put single course online as socalled "Massive online Open Courseware" (MOOCs)" in order to provide students from other countries the opportunity a kind of virtual border-crossing (de Corte, Engwall, & Teichler, 2016). And some universities pursue what is often called "internationalization at home" through an internationalization of their curricula, an increase of foreign academics and other means (Beelen & Leask, 2011; Leask, 2015).

Arguments are convincing that internationality has become more of a "must" for the academic profession that for the students. Research collaboration with academics from other countries and publishing at least in part in foreign publication outlets or at least in part in the English language as lingua franca of international academic communication are enormously frequent phenomena these days. But again, available statistics and surveys show striking variations between countries of the proportion of internationally active academics (see Cavalli & Teichler, 2015; Huang, Finkelstein, & Rostan 2014).

#### The Future of Higher Education

Since the beginning of the 21st century, we note vivid debates all over the world about the future of higher education (see Brennan & Teichler, 2008; Shin & Teichler, 20014; Zgaga, Teichler, Schuetze, & Wolter, 2019). The notion of "knowledge society" suggests that the development of higher education is very important for the future of societies. Concurrently, strengthening of evaluation, incentive steering, university management, etc. shows that doubt is widespread whether the normal life of higher education is good enough and that a need is felt to put higher education under pressure.

Most discussions about the future, however, are not revolutionary. There is a widespread notion that meaningful changes and reforms have started already in the past and now have to be rounded up, e.g.

- Growing international cooperation and mobility in higher education,
- Stronger efforts for higher education to be visibly effective and efficient and thereby making professors more competitive,
- Stronger pressures to ensure increased quality, increased relevance and increased efficiency concurrently,
- Increasing virtual communication in research, teaching and learning,
- A strong emphasis on enhancing top universities and enhancing the research quality at top universities,
- Increasing the power of the university management.

A close look, however, shows that there is not a widespread agreement on future goals and that substantial steps towards the implementation ought to be taken. The author of this article likes to mention the following tensions:

- Internationalization often is named as a commonly agreed goal, but higher education policies in many countries seem to have become more nationalistic or, as Peter Scott (2015) argues, more "hegemonic": How can our country be more successful than others?
- "Knowledge society" calls for increasing relevance of higher education, but most measures to check the performance of higher education put purely academic criteria in the forefront (e.g. publications in academic journals).
- The professors are pushed very much by strengthened management, increased evaluation activities and stronger incentive steering and thereby are they guided to be productive and successful according to certain criteria. The question remains, whether academic freedom is

needed today to move into non-conventional directions and to ensure opportunities for unexpected creativity.

• Much attention is paid to the top of higher education system, as the discussion on "rankings" and "world-class universities" shows. There is a danger that too little attention is paid to the enormous potential changes within a "highly educated society", i.e. to the potentials of strengthening the "wisdom of the many".

Higher education research has the chance of being less influenced than higher education policy and practice by the fashions of the "Zeitgeist" of a certain historical period. Higher education research has the opportunity to make politicians and practitioners aware of the tensions and inconsistencies of the currently dominant concepts of higher education. Higher education might play a major role in pointing out possible alternatives, whereby international comparative research might be eye-opening for such alternatives.

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