Higher Education Systems

Conceptual Frameworks, Comparative Perspectives, Empirical Findings

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Higher Education Systems
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Higher education worldwide is in a period of transition, affected by globalization, the advent of mass access, changing relationships between the university and the state, and the new technologies, among others. Global Perspectives on Higher Education provides cogent analysis and comparative perspectives on these and other central issues affecting postsecondary education worldwide.
Higher Education Systems
Conceptual Frameworks, Comparative Perspectives, Empirical Findings

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CHAPTER 1

HIGHER EDUCATION SYSTEMS: A KEY ISSUE OF HIGHER EDUCATION RESEARCH

1.1 THE RELEVANCE OF THE THEME

The configuration, shape and size, pattern, structure, and institutional fabric – there is no generally accepted term – of higher education have been key themes of the public debate for almost half a century in many economically advanced societies. Considerable attention was paid to the quantitative expansion of higher education, whereby student rates – rates of new entrant students or of graduates in the corresponding age groups or rates of all students amongst persons of typical college-going age – were most frequently used to measure this. Concurrently, the degree of homogeneity or diversity of national higher education systems – often discussed under “diversification” – were on the agenda, whereby many observers noted a close link between expansion and pressures for change in the patterns of the system.

Why was the configuration of the higher education systems so high on the agenda in public debates? The core functions of higher education are the generation, dissemination, and preservation of systematic knowledge; we talk about research, teaching, and learning and possibly of services related to these core functions. These are the essentials, whilst patterns of the higher education system are merely the institutional surface – like the popular issue of the steering of the higher education system. But, obviously, the surface matters.

First, the shape and size of a higher education system mirror the societal role of higher education: for example, how important is systematic knowledge for the economy, society, and culture of a country, who and how many people have access to knowledge, to what extent is a society meritocratic and what role does education play in this framework?

Second, the quantitative-structural development of a higher education system depends on how highly a society regards higher education in terms of resource allocation and thus in terms of priorities, as compared to other societal demands.

Third, the degree of expansion and the institutional patterns, among others, are the outgrowth of a compromise between various conflicting expectations to which higher education is exposed from external and internal forces: How important is the role of research within higher education and to what extent is research linked to or separated from teaching and learning; is quality concentrated at the apex of the system or widely dispersed, etc?

Fourth, decisions concerning the growth and configuration of higher education are the most important arena in higher education where academic expertise, pri-
mainly controlling the development of the substance of research and teaching, 
*meets the societal expertise and power* of the visible hands of government and 
other societal actors, as well as of the invisible hands of markets, customs, and 
values, i.e. the forces that rule issues such as the societal value of systematic 
knowledge and the resource allocation for this sector.

Last but not least, higher education systems have been fairly dynamic in recent 
decades with respect to their shape and size. One wonders how they develop, why 
they change the way they do, what options exist to shape these dynamics, and what 
are the consequences if a certain option is chosen. These are typical issues of the 
public debate.

The fact that these issues are viewed as relevant and that their dynamics and 
their causes and consequences cannot be grasped easily contributed to a continuous 
controversial debate about the institutional patterns of the higher education system 
in many individual countries and in international fora.

1.2 THE THEMATIC MAP

In talking about the quantitative structural patterns of higher education systems, we 
shall address five issues from the outset.

First, we define a higher education system, as a rule, as the totality of quantita-
tive-structural features *within a country*. We neither have in mind higher education 
world-wide nor in a single province. Thus, the higher education system is a macro-
societal phenomenon, the characteristics of which could be detected through inter-
national comparison.

Second, it is not altogether clear which study programmes and institutions are 
part of higher education. Until the 1960s, reference was frequently made to the 
university system whereby higher education institutions were viewed more or less 
as an appendix of the university system. The dominant term *higher education* in 
the subsequent decades certainly underscored similarities and systemic interde-
pendences of institutions and programmes in charge of academically demanding 
teaching, though they could differ substantially with respect to the research func-
tion. In the 1980s, the term *tertiary education* began to spread and was notably 
used by international organizations. This term referred more strongly to a stage of 
learning in the life course than to the intellectual ambition of teaching and learning 
as the term higher education. As tertiary education never caught the attention of the 
conceptual debate in the same way as higher education and was never accepted in 
all countries, this study continues to address “higher education”, even though some 
studies that are referred to have a wider institutional and programme scope.

Third, *institutions and programmes* are mentioned here, because no single term 
provides any clear delineation. On the one hand, some institutions also offer pro-
grammes outside the domain of higher education, for example academic secondary 
education, and on the other hand, some institutions that are not considered to be 
higher education institutions offer a single or a few programmes in the domain of 
higher education.
Fourth, the “size” of the higher education system is a central theme. Expansion of higher education – its features, causes, and consequences – has been a core issue of the public debate on higher education. In this framework, the size of student enrolment in relation to the typical age groups of the population – for example, the percentage of new entrant students – tends to be addressed, while the importance of research activities does not play any determining role.

Fifth, the institutional fabric is the most frequently addressed issue: How far do institutions and study programmes in a country resemble each other, i.e. with respect to the level of academic quality, the substance of curricula, and the research paradigms, or how far and in which way are they different?

Any attempt to describe the shape and size of the higher education system must address a broad range of features:

– The size of the higher education system could be described according to the number of institutions, academic staff, and students in absolute and relative terms.

– The higher education system must be defined according to its position in the overall education system. Similarly, the research activities in higher education could be described in the framework of a national research system.

– Access and admission are key elements at the entry to higher education, through which the size and shape are regulated to a considerable extent.

– The institutional configuration of higher education can be described according to formal structural elements: types of institutions, fields of study, and research disciplines, as well as types and levels of study programmes.

– Moreover, study programmes can be described according to various formal characteristics, such as the required period of study, formal stages within a programme, opportunities and limits of transfer between fields and types of institutions and programmes, study paths and progressions, drop-out rates, and modes of graduations and titles conferred upon graduation.

– Finally, debates on the configuration of higher education systems also refer to the character of higher education according to dimensions that cannot be measured clearly and tend to be inter-subjective: “vertical” differences between institutions and programmes of formally the same category according to “quality”, “reputation” or simply “ranks” and “horizontal” differences according to “profiles”.

This is by no means merely a discussion among experts who are interested in statistics and formal rules. Rather, key issues are addressed which can attract public attention: Do we have too many or too few academically trained persons? What size of system can we afford? Who has a chance of benefiting and who is the loser with respect to privileges linked to higher education? To what extent are students different in their motives, talents, and job perspectives from the outset, and to what extent are they led to be different by the patterns of the higher education system? To what extent must teaching and research be combined or separated within higher education? What degrees of common quality across the system or of quality differences are possible and desirable? To what extent do the individual study programmes or research units within each field and discipline have elements in com-
mon, or to what extent are they characterized by a multitude of profiles? What are the potentials of steering the shape and size of the higher education system, how should it be steered, and who should steer it?

1.3 PERSPECTIVES OF HIGHER EDUCATION RESEARCH

Research on higher education is a relatively young interdisciplinary branch of research, drawing from the concepts and methods of various social and behavioural disciplines, but developing its own conceptual and methodological dynamics, as well as its own specific body of knowledge. Like other interdisciplinary research fields with a thematic focus, higher education research tends to be driven to a certain extent by the dynamics of public debates. Without its ties to changing issues that are considered “relevant” or “problematic” it would not exist, and without its critical distance to the actors’ debates it would not have any genuine mandate. Therefore, the shape and size of higher education systems were not only a key theme in the public debate, but also when higher education researchers observed and made attempts to explain the dynamics of higher education.

Research on higher education, first, intends to describe the institutional size and configuration in a systematic way. This could imply enumerations according to established categories, such as numbers and rates of students, as well as descriptions according to categories, such as official types of institutions or disciplines. But research on higher education primarily attempts to develop categories that can guide descriptions which help explain the causes and options for targeted policies. Hence, systems are “described” and analysed using terms such as “elite” and “mass” higher education, “unitary” and “binary” structures or “homogeneous” and “stratified” systems.

Second, research on higher education aims to explain the causes for the shape and size of a system at a certain historical moment in a certain country, differences between countries, and change over time. Attention is paid in this context to external demands, such as the technological developments in industry, the labour market for graduates, the calls of a society for improved knowledge and understanding of societal mechanisms and development, as well as to internal dynamics of higher education, such as specialization of knowledge systems, conflicts between quality and quantity, and inclinations of the actors in higher education to imitate and copy the most successful ones among them, and finally to the political forces in play.

Third, research on higher education analyses the policy scene of the growth and configuration of the higher education system. To what extent do the actors consider the system as “problematic” and why? What do they consider the imperatives of shaping the system? What range of options do they note? To what extent do they consider higher education to be driven by universal or supra-national dynamics, historically grown features within a single country or key policy options? What are the underlying theories of causes and consequences of certain configurations of the higher education system? What assumptions of the legitimate or actual roles of the various actors shape the political configurations in this area? What do the actors actually do to preserve or change the system?
Fourth, research on higher education attempts to establish the impact of certain characteristics of higher education systems. For example, is a moderate or high degree of vertical diversification of a higher education system more beneficial for the quality of research, the dissemination of knowledge in society, the reflective potentials of actors in society or the competences called for by the world of work?

Fifth, systems of higher education are not micro-societal or meso-societal phenomena that can be analysed primarily with the help of statistics, questionnaire surveys, interviews, discussions or observations. Rather, as macro-societal phenomena, they are also in need of a plausible conceptual mapping of varied phenomena by the higher education researchers, whereby one must seek intersubjective evidence by other means.

Sixth, comparative views play a crucial role in the analysis of higher education systems. This is not only because macro-societal research, by definition, needs to look at various societies in order to have a minimum number of cases for understanding them, but also, because public debates are always spurred by the search for better practices established somewhere else or by the belief that distinct characteristics within an individual country, which are only understood with the help of comparisons, should be maintained or advanced.

1.4 KEY FEATURES OF ANALYSIS AND DEBATES

Issues concerning the shape and size of the higher education system tend to be discussed by actors and experts in a common public discourse whereby the different types of actors and experts cannot be disentangled. This is typical of issues of higher education in general – an area in which the highly trained actors tend to believe that they hardly differ from researchers in their field in terms of understanding its characteristics. Ironically, higher education tends to tell the world that progress depends on systematic knowledge generated largely through research, but when it comes to higher education itself, each actor believes he does not need the systematic knowledge generated by researchers in that domain to understand or possibly remedy the reality. Thus, we note an expert discourse and expert attempts to define the character of higher education with fuzzy borderlines between a discourse of practitioners and scholars in this domain.

The common key themes are “expansion” and “diversity”: their degree, their causes, their impact, whether and to what extent expansion and diversity are desirable, to what extent they ought to be changed, and what and how something could be done to change them.

In the meantime, a framework of concepts, terms, and modes of analyses has developed which ensures a certain quality of discourse, even though emotions figure strongly. In talking about and analysing “diversification”, “elite” and “mass” higher education, etc., we must, as is pointed out in chapter 19:

– harbour a concept of a higher education system,
– consider institutional aggregates, e.g. sectors or individual institutions, as important elements,
– attempt to establish a “map” of the configuration of the system, thereby establishing coordinates of the system (e.g. “vertical” versus “horizontal” diversity), determining the position of the individual elements and the extent to which they differ and analyse these elements with respect to the core function of higher education,
– aim to identify suitable categories to classify the institutional configuration (e.g. “unitary”, “binary” or “stratified” systems),
– attempt to establish functional descriptors to analyse the institutional elements (e.g. involvement in research, characteristics of study bodies, curricular approach),
– examine the strengths and weaknesses of information gathering,
– clarify the role of the appearance and perception of the system (e.g. transparency, reputational bias),
– analyse changes in the system (e.g. “diversification”),
– aim to explain the causes for the configuration and the change of the system,
– discuss the functionality or dysfunctionality of the system.

We note a gradual process of consolidation of analysis and a growing complexity of features taken into consideration in the analysis of the quantitative-structural aspects of higher education. Most descriptions of the actors’ and experts’ discourse, however, underscore substantial changes in the key themes of debates over time and a strong role of political moods accompanying this discourse. These changing Zeitgeist of discourse will be one of the core themes of the analyses presented in this volume.

1.5 THE VIEWS AND ACTIVITIES OF THE AUTHOR

The author of this book has been active in higher education research for almost forty years. The quantitative-structural developments of higher education in a comparative perspective was one of the three major themes – additionally higher education and the world of work, as well as international dimensions of higher education – addressed over a long period of time in over 200 publications. Three aims were pursued – which were often closely intertwined – in the analyses of this thematic area:
– to describe and analyse the trends of the shape and size of higher education and related policies in economically advanced countries in a comparative perspective,
– to give an account of concepts aiming to analyse these trends and policies and explain their causes,
– to contribute to an improvement of the conceptual framework.

Three attempts were made to synthesize the state of knowledge on the institutional fabric of higher education. They reflected the trends and the knowledge available at the time of analysis, as well as the authors’ understanding.

First, in the mid-1970s, facts and interpretations about the causes for student enrolment and related changes of institutional patterns were analysed from the point of view of the role of the world of work. The study initiated by the International
Labour Office draws from various analyses about the lessons Europe could learn from the preceding higher education expansion and its socio-economic context in the U.S. and Japan. It attempted to summarize the state of economic and sociological analyses of the demand for expansion and for certain configurations of higher education systems. The study was first published in German in 1976 (Teichler, Hartung, and Nuthmann. Hochschulexpansion und Bedarf der Gesellschaft. Stuttgart: Klett 1976) and subsequently in English (Higher Education and the Needs of Society. Windsor: NFER Publishing Company 1980). The authors argued that a “demand for societal inequality” had a stronger impact on the quantitative development of higher education than a demand for certain competences or for a certain number of highly skilled persons in the labour force. And the study presented a developmental theory. Accordingly, the modernization of society in the course of industrialization was characterized by an increasing interdependence between organized acquisition of qualifications and status distribution. The promise of social advancement served to stimulate the acquisition of required qualifications, and the existing social inequality was alleged concurrently to be the equitable reward for the performance society required. The more accessible education became for large shares of the population and the more educational meritocracy progressed, the more higher education expanded beyond presumed demand for qualifications. As a consequence, small differences in educational “success” served to distribute graduates across the relatively persistent social ranks, and diversification of higher education became a constantly changing key instrument to channel these tensions between educational motives and attainments on the one hand and the more steeply stratified social structure on the other. Another study came to the conclusion that Japan was the most visible case of the problems an educational meritocracy could incur (Teichler. Das Dilemma der modernen Bildungsgesellschaft. Stuttgart: Klett 1976; cf. “Kogakureki shakai – the modern education society from a comparative point of view”, Asian Profile, Vol. 5, No. 7, 1977, 487-506). If an educational system is widely open and if educational attainments are strong determinants of the subsequent career and status, fierce competition for educational “success” could become unbearable, selection on the basis of educational attainment could be seen as rather artificial because small differences have an enormous impact, the substance of education could be strongly driven by the logic of the selection system and thus be less relevant for personality development and professional preparation than desired, and the system could eventually have a stronger demotivating (with respect to the masses) than motivating (of the chosen few) overall impact.

The second study was an attempt to summarize both the development trends of the institutional fabric of higher education and the different political and academic interpretations of the causes, problems, and benefits of various configurations. The book was first published in 1988 (Teichler. Changing Patterns of the Higher Education System. London: Jessica Kingsley Publishers 1988) and extended afterwards for a publication in German (Europäische Hochschulsysteme: Die Beharrlichkeit vielfältiger Modelle. Frankfurt/M. and New York: Campus 1990). It was viewed for some years as the most comprehensive account of the “diversity” debate. The
overview of trends, policies, and conceptual framework could not only draw from
the available literature, but also from three studies undertaken from the early to the
late 1980s: an analysis of “integrated” models of higher education, a pilot study of
a European “Diploma Handbook” initiated by the European Commission and pub-
lished by UNESCO, and an account of the “organization of studies” in European
countries initiated by the Council of Europe.

In this second account of the discourse on the shape and size of higher education
systems, I pointed out that we observed a widespread conviction that higher educa-
tion systems converge: that they are shaped by similar factors and develop accord-
ing to similar lines in economically advanced countries. On the other hand, we
noted a persistence of substantial differences between these countries concerning
the degree of expansion – e.g. the enrolment rates – and the degrees and modes of
diversity of the national higher education systems. I argued that the external pres-
ses and internal dynamics were too manifold and less determining to push for an
internationally convergent model. For example, the higher education systems that
were characterized by steep stratification could have become more popular over
time than models of moderate diversification, but it was not easy to establish clear
evidence of the superiority of a certain model.

I argued that three approaches concurrently shaped both the analyses of the
causes of the quantitative-structural developments of higher education systems and
the related policy debates. In idiosyncratic approaches, emphasis is put on the
characteristics of certain higher education systems that once they have emerged
under certain historical circumstances, due to the overriding influence of certain
concepts or because of certain political influences, tend to remain fairly stable or
continue to put their stamp even on substantial innovations. According to func-
tional approaches, higher education systems in all modern economically advanced
societies are influenced by certain societal, economic, technological, cultural, and
educational factors that are common to certain societies. They have a strong impact
on what options are chosen, on what actually proves to be successful. Finally, politi-
cal approaches put emphasis on programmes and powers that intend to change
higher education systems. Varying political options, such as more elitist or more
egalitarian approaches, could be opted for and may actually change higher educa-
tion systems to a certain extent deliberately. As a rule, we note in each country
mixes and compromises between these approaches, and, as a consequence, a
stronger persistence of varied configurations of national higher education systems
rather than a convergent trend.

This volume resembles a third stage of analyses. The essays were written over a
period of almost two decades since the late 1980s. The variety of themes addressed
and concepts presented in chapters 2 to 18 are discussed comprehensively in chap-
ter 19. The analyses point out, first, that the patterns of higher education in Europe
underwent two phases of change since the early 1990s. Major changes of the insti-
tutional type took place in divergent directions in various European countries in the
1990s: towards a merger of institutional types in the United Kingdom, towards the
establishment of a second type in Austria, Finland, Switzerland, and other coun-
tries, and in different directions in Central and Eastern European countries. Since
the late 1990s, European governments have cooperated in establishing a convergent fabric of study programmes and degrees.

Second, the analysis points to factors which are widely viewed as being highly influential for the configuration of the higher education systems in economically advanced countries:

- a new trend of expansion of student enrolment since the mid-1980s,
- growing international cooperation and mobility,
- globalization in terms of a stronger impact of world-wide economic forces and consequently an increasing competition of top universities to be “global players”,
- changes in steering and management within higher education systems that strengthen the role of the individual institutions to position themselves,
- a trend towards a knowledge society whereby higher education institutions are expected to demonstrate their visible utility for society.

Altogether, the complexity of the factors that shape the configuration of higher education systems seems to grow. Moreover, national higher education seems to be more strongly affected by supra-national factors than before. Third, policies in favour of a steeper stratification of higher education systems seem to have won increasing support, though counterveiling views and activities can also be observed.

Various essays address explicitly the issue of whether trends and policies in Europe had differed systematically from those of the United States, Japan, and other countries as far as institutional patterns were concerned in terms of ensuring a certain “gold standard” of quality irrespective of increasing vertical diversification in the process of expansion. This has led to strong emphasis of diversity according to types of higher education institutions for some decades, to a preference of moderate vertical diversity, and to significant tensions between research policies and educational policies in efforts to move towards a European Higher Education and Research Area, where the policy of facilitating intra-European mobility in the framework of the Bologna Process is based on the conviction that a moderate vertical diversity should not be replaced by steep stratification.

Finally, the essays in this volume discuss the development of higher education research as far as issues of the institutional fabric of higher education are concerned. Many studies seem to be closely linked to certain normative views as regards the desirable extent of diversity and not examine convincingly the strengths and weaknesses of various models according to neutral overarching criteria. More research which aims to establish the impact of the various configurations of the higher education system is called for.

1.6 THIS VOLUME

Similar to the book “Changing Patterns of the Higher Education System” (1988) almost two decades ago, this book is not the offshoot of a major research project. It rather comprises a collection of “think pieces” drawing from dozens of occasions to reflect recent changes of higher education systems and to carry conceptual
framework in this domain stepwise further. As the list of sources presented at the end of this volume shows international conferences held in ten different countries as fora of communication either among higher education researchers or in cooperation between actors and experts in this field most frequently triggered off the thoughts presented. Actually, these papers presented are selected from almost hundred manuscripts most of them written in the recent two decades.

I appreciate the fact that I had many opportunities of communication with scholars from many countries active in this thematic area and that I get to know their views in a broader and richer way than just by reading their publications. I like to name in this context Philip G. Altbach, Akira Arimoto, Berit Askling, Ivar Bleiklie, John Brennan, Ladislav Cerych, Burton R. Clark, David Dill, Oliver Fulton, Claudius Gellert, Sarah Guri-Rosenblit, Klaus Hűfner, Osmo Kivinen, Maurice Kogan, Svein Kyyyk, V. Lynn Meek, José-Gines Mora, Guy Neave, Peter Scott, Helena Sebkova, Martin Trow, Morikazu Ushiogi, Henry Wasser, and Marijk van der Wende. Naturally, work on this thematic area was enriched by communication with scholars with whom I cooperated in related areas at the International Centre for Higher Education Research (formerly Centre for Research on Higher Education and Work), University of Kassel (Germany), notably Sandra Bürger, Jürgen Enders, Barbara M. Kehm, Matthias Klumpp, Stefanie Schwarz, and Harald Schomburg. And I appreciated the support for spending some period away from my usual surroundings in Germany and focussing on this thematic area at the Research Institute for Higher Education of the Hiroshima University in Japan.

Ideas regarding the selection of papers and the thrust of revisions of the initial manuscripts were enriched by activities to publish collections of my articles on similar themes in other languages. Graciela Riquelme edited U. Teichler. Reformas de los modelos de la educación superior (Buenos Aires and Madrid: Mino and Dávila 2006), Toru Umakoshi and Yumiko Yoshikawa edited U. Teichler. Yôroppa no kôtô kyôiku kaikaku (Tokyo: Tamagawa University Press 2006), and Monika Klampfleitner assisted the editing process of U. Teichler. Hochschulstrukturen im Umbruch (Frankfurt/M. and New York: Campus Verlag 2005). The key editor of this volume was Christiane Rittgerott who advised the selection of articles and took over a broad range of editing activities. She was assisted in this process by Helga Cassidy, Muna Mohammed Al-Fanah, Christina Keyes, and Dagmar Mann. I am grateful for all the encouragement and the support I received.
CHAPTER 2

HIGHER EDUCATION – AN OVERVIEW
ON ISSUES AND TRENDS
(2001)

2.1 DEFINITION

“Higher education” became a popular term in the second half of the twentieth century depicting the intellectually most demanding stage of pre-career education. Terms such as “post-secondary”, “tertiary”, or “third-level” education underscore the organization of the education system according to stages of learning: Upon completion of primary and secondary education, i.e. after 10 to 14 years of schooling, varying according to national systems of primary and secondary education and, in a few countries, according to types of higher education and programmes, students might enrol in the third stage of education, as a rule prior to embarking regular employment. The term higher, however, suggests a specific quality of this advanced stage, expecting students to learn questioning prevailing rules and tools and to understand theories, methods, and substance of “academic” knowledge. Higher education also differs systematically from other sectors of education in comprising many institutions with a twofold function: not only teaching and learning but also “research”, i.e. the creation and preservation of systematic knowledge.

2.2 HISTORY

Institutions and programmes of advanced learning existed in various countries more than thousand years ago. Experts, however, tend to agree that the core elements of today’s higher education, i.e. teaching and learning of “analytic”, “rational”, “systematic”, “critical”, “sceptical” and “innovative” thinking, emerged from the European universities of the Middle Ages. The foundation of the University of Bologna in the late 11th century is widely viewed as the beginning of the modern university.

Around 1800, a new historical stage of higher education can be noted when substantial changes of the European universities occurred. The British model of the Oxford and Cambridge approach regained strength which puts emphasis on the trained mind and the personality development through close communication between the teachers and the students. The French university, reformed under the Napoleonic regime, combined strong state coordination of organization and of the curricula leading to state-coordinated degrees with a decentralized organization within the university, thus reinforcing a divide between the faculties and notably intellectual and cultural approach of the facultés des lettres and sciences on the one
hand and on the other the professional emphasis of other faculties inside the universities and écoles outside the universities; the French university became a model notably for many Southern European and Latin American universities. The German model, mainly the “unity of teaching and research” approach of the Humboldtian university, was based on the idea that academic freedom and institutional autonomy guaranteed by the state help to secure the university’s most appropriate service to society, and also underscored the freedom of learning, i.e. student’s ability and responsibility of independent learning in communication with the professor. The German model became the internationally most influential in the nineteenth century.

The models did not necessarily spread through faithful copying, but often through adaptations and misunderstandings which turned out to be creative in some instances. Notably, the U.S. approach of being “as British as possible” as far as undergraduate education is concerned and “as German as possible” by combining teaching and research, and in establishing graduate schools as a completely new element, tends to be viewed as the most successful one in the twentieth century (Ben-David 1977).

The development of higher education after World War II is often regarded as the third stage of the history of modern higher education. Higher education was no longer expected to serve a small number of academics and socially exclusive professions, but rather became a “mass” or an almost “universal” phenomenon (see Trow 1974). Whereas around 1950, less than five per cent of the respective age group enrolled in most industrial countries, the respective proportion was even more than 50 per cent in some countries at the end of the twentieth century. The number of doctoral-granting institutions in the world had risen to about 10,000 and of other institutions to even a higher number, and the total number of students according to UNESCO statistics was more than 100 million in 2000.

2.3 THE EMERGENCE OF HIGHER EDUCATION RESEARCH

While scholars tend to believe that research is essential for progress in all spheres of life, research on higher education remained an exceptional activity until the second half of the twentieth century. The state of higher education research remained vulnerable until today in most countries not at least because many practitioners, i.e. governmental officials, university managers, scholars, etc. tend to believe that the practitioners’ reflections suffice in this area. This is also underscored by the fact that no clear distinction is made between the roles of scholars specialized in higher education and of the practitioners in many expert publications on higher education which often are on the borderline between research and practitioners’ reasoning.

With the growing numbers of students and the corresponding functional changes, however, higher education research substantially spreads. It is based on more heterogeneous institutional settings than research on other parts of the educational system. Notably, three separate spheres of research emerged (Schwarz and Teichler 2000a):
(1) academically-based higher education research, either
- occasionally or regularly pursued by scholars from various disciplines of the humanities and social sciences (e.g. psychology, sociology, economics, and history), or
- embedded in educational research as a specific area of expertise (notably in the United States of America where master and doctoral programmes of higher education were established in educational schools/departments) or as a sub-theme of education in general, or
- research institutes of higher education established at universities outside the departmental structure;
(2) higher education research linked to practical processes within higher education institutions, e.g.
- combined with services of “staff development”, “Hochschuldidaktik” or other units primarily in charge of improving the teaching competences of academic staff (this is most widespread in China, Australia and used to be widespread in the Soviet Union), or
- gathering of systematic information for policy and administrative purposes of the higher education institutions (named “institutional research” in the U.S.);
(3) higher education research embedded in and serving governments and other supra-institutional agencies of higher education policy, e.g. umbrella organizations of higher education institutions, the professions, employers’ organizations, etc.

Altogether, most higher education research can be characterized as being strongly driven by the social role relevance of their core themes, based on a substantial breadth and depth of field knowledge, and often cutting across disciplines and their favoured thematic areas. Four major thematic areas of higher education research can be observed (see Teichler 1996b):
- quantitative and structural aspects,
- knowledge and subject-related aspects,
- person-related as well as process-related, i.e. teaching and research-related aspects, and finally
- aspects of organization and governance of higher education.

Although higher education research addresses in principle all spheres of higher education, it tends to put a stronger emphasis on the teaching than on the research function. Science studies (history of science, sociology of science, etc.) largely form an academic community of their own. Both, higher education research and science research marginally take notice of each other.

2.4 QUANTITATIVE AND STRUCTURAL DEVELOPMENTS

2.4.1 Access and admission

According to OECD statistics (OECD 2000), about 80 per cent of the corresponding age group on average of the OECD member states successfully completed upper secondary education in the late 1990s, among them about three quarters are types of programmes qualifying for entry to higher education. Upper secondary
education varied between countries structurally, i.e. “horizontal” (graduates of all institutions and programmes are eligible for entry to higher education) or “vertical” (specific types and programmes preparing for higher education), as well as according to the role vocational training plays and the way it is organized (as element of the general schooling system, separate vocational full-time schooling, or apprenticeship training).

The various modes of admission to higher education can be classified according to three types (cf. Fulton 1981; Teichler 1988a).

(a) If secondary education is organized horizontally (e.g. the U.S., Japan, and Sweden), the large numbers of those successfully completing secondary education are eligible to apply for admission to higher education, whereby entry to higher education is the major point of selection within the education system. The entry decisions rest with the higher education institutions (in the U.S.) or their departments (e.g. in Japan and the UK), and might be based on school grades, combinations of school subjects, admission tests, interviews, etc., whereby the admission process might be administered individually by the higher education institutions or by an agency acting on their behalf.

(b) If secondary education is vertically organized, those successfully completing the academic track (being awarded the Abitur, Matura, Baccalaureat, etc.) tend to be entitled to enrol at institutions of higher education (e.g. Germany, France with respect to universities, and The Netherlands). As a rule, entry is a non-dramatic point of allocation, and selective admission applies only for few fields and institutions.

(c) Finally, some countries provide for both selective secondary education and selective admission at entry to higher education (e.g. the UK).

At all modes, most of those applying for higher education will eventually enrol. The admission system in industrialized countries is not primarily a gate-keeper of the overall quantity of enrolment, but rather allocates primarily with respect to the type, institutional prestige or field of study.

2.4.2 Enrolment, drop-out, and graduation

The “youth” in most countries acquire entry qualification for higher education at the age of 17 to 19 years. The average age of new entrant students varies in industrial countries between 18 and 23 years. Thereby, periods of vocational training or jobs, military service, preparation of entry examinations, or high proportions of “adult students” come into play.

The OECD reports an average “net entry rate” to higher education in terms of programmes leading to a (at least bachelor) degree of 40 per cent in industrialized countries for 1998. Ratios of more than 50 per cent could be observed in New Zealand, Sweden, Finland, Norway, and Australia. In addition, almost 20 per cent begin short tertiary-education studies. Altogether, women have enrolled as frequently as men, on average, in industrialized societies since about 1990. UNESCO calculated a gross enrolment rate, by comparing enrolment figures of young people within five years of the normal school-leaving age: 63 per cent enrolled in “more
developed regions”, 38 per cent in countries in transition and seven per cent in “less developed regions”.

About two-thirds of those enrolling in degree programmes in industrialized countries are eventually awarded a degree. The drop-out rates, estimated with the help of a comparison of the numbers of graduates in a given year with those enrolling a corresponding number of years earlier, are 20 to 40 per cent in most countries with 10 per cent in Japan (lowest) and about 65 per cent in Italy (highest).

In 1998, on average 22 per cent of the respective age group across industrial countries eventually were awarded a degree (in comparison: one per cent on average were awarded a doctoral degree). In addition, 11 per cent completed other tertiary education programmes (OECD 2000, p. 173).

The naming and composition of students by field of study differs substantially according to country. The proportion of those graduating in engineering and science fields ranges from about 40 to 60 per cent.

2.4.3 Diversity of levels, programmes and institutions

Universities, i.e. institutions usually defined in Europe as multidisciplinary institutions in charge of both teaching and research, entitled to award advanced academic degrees (notably the doctorate) and, where applicable, entitled to award subsequent degrees qualifying for senior academic positions (the “doctor scientiae” or the Habilitation), are considered the key institutions of higher education. Except for France, where grandes écoles lead to the highest professional careers, entry to university is generally viewed as most prestigious and rewarding. Most other institutions, i.e. mono-disciplinary institutions of technology, theology, etc., initially viewed as less prestigious, often gained the same status as universities over the years.

Since the 1960s, however, two developments reinforced a diversification of higher education. Pressure towards increasing systematic knowledge in the middle-level occupations or “semi-professions” led to an “up-grading” of the institutions serving the training of these occupations. Concurrently, the growing university sector came under pressure to diversify because the growing student body became increasingly heterogeneous in terms of motivations, competencies, and career prospects and because resources were not made available for an expansion of research-oriented higher education in tune with increasing students’ enrolment (Teichler 1988a; Meek et al. 1996).

In various European countries, an additional sector of higher education was established, called for example “polytechnics” in the UK (which eventually became universities in 1992), instituts universitaires de technologie in France and Fachhochschulen in Germany which initially were expected to provide applied educational programmes, but not to undertake research. This sector was named “short cycle”, “non-university” or “alternative” without any of these terms being generally appreciated.

Countries varied substantially, however, according to the extent to which differentiation of higher education was realized through
CHAPTER 2

- types of higher education institutions;
- curricular approaches of programmes (e.g. academic versus professional/vocational);
- levels of programmes and degrees; for example the OECD opted for some time for a classification of “non-university certification”, “short first university degree” (e.g. English and U.S. bachelor), “long first university degree” (e.g. Austrian Magister or Italian Laurea), “second university degree” (e.g. English and U.S. “master”) and doctoral or similar degrees;
- length of programmes (in terms of years of study or credits/points, etc.), and
- varied reputation and prestige among formally equal institutions and programmes.

Higher education systems, for example, were characterized as “unitary”, “binary”, “dual” or “multi-type”, “stage” or “level”, “comprehensive”, etc. In the search for more analytically valuable typologies, three distinctions are frequently made:

(1) Higher education institutions might be grouped into distinct types or sectors, or they might be viewed as a point in a continuum. As regards the latter, the Czech higher education policy in the 1990s was described as pursuing a “spectral approach”.

(2) The variety of institutions and programmes might be described solely in vertical terms (quality, reputation, career success of graduates, etc.) or additionally in horizontal terms (substantially different profiles of institutions and curricular thrusts, e.g. “academic” versus “professional” or “applied”).

(3) A higher education system might put emphasis on inter-institutional diversification or intra-institutional differentiation (the “comprehensive university” model in Europe or different levels of certificates and degrees).

2.5 KNOWLEDGE, TEACHING AND LEARNING

2.5.1 Learning and pursuit of knowledge

Teaching and learning in higher education differ from those in other educational institutions in expecting students to learn questioning the available wisdom and the established ways for problem solving and to be prepared for indeterminate work and other life tasks. This is reinforced by a close link between teaching and research which should ensure that teaching is at the “cutting edge” of research development. In most countries, teachers of the most prestigious institutions of higher education are assigned to both teaching and research tasks, whereby “academic freedom” is held in high esteem. In some countries, curricula are very open and teaching is conceived more or less as a by-product of research.

2.5.2 Trend toward systematization of curricula

With the expansion of higher education, however, a trend could be observed towards systematization of content, structures, and processes. Study programmes were divided into sequences and stages. Curricular regulations grew, and measures
of informing and guiding students were extended. In many countries, teachers were expected to be trained in techniques of teaching, and regular evaluation of teaching practices often was introduced. The trend towards systematization affected initial course programmes most strongly. But the U.S. concept of graduate schools for those preparing for a doctoral degree was also taken up or modified in most other countries in the latter half of the twentieth century (Clark 1995).

Yet, major curricular approaches remained varied across and within countries, notably according to seven dimensions: First, curricula may be directed more strongly towards preparation for research and the creation of knowledge or towards the reproduction of knowledge available. Second, curricula may be geared closely to occupational preparation, for example widespread in medicine, law and engineering, or not related to job roles at all. Third, objectives of higher education curricula differ remarkably according to the degree of specialization. Fourth, fields of study may be designed according to disciplines or take on a multi-disciplinary character. In some countries, fifth, a common core of knowledge might be offered for all students (e.g. “studium generale”), while in others no common courses are prescribed or provided for students from different fields of study. Sixth, views differ as regards the responsibility of higher education for the personality development of students beyond the cognitive domain. Finally, curricula vary according to the extent they aim to contribute to cultural enrichment of society.

The variety of curricular approaches had their pendant in the roles of the teachers and the students. Students might be viewed as young learners for whom the university serves in loco parentis, as customers or as independent and self-responsible young members of the university community. Teachers might view themselves as scholars in the pursuit of knowledge where teaching largely serves a transmission and academic discourse function or as educators and counselors. Available research suggests that students have more similar views across countries on “good” teaching and learning (see Teichler and Maiworm 1997 with respect to temporarily mobile students) and teachers on their role and function (Altbach 1997) than one would expect, taking into account the diversity of national systems of higher education.

2.5.3 Expectation of relevance and utility amidst uncertainty

In the 1980s and 1990s, the conditions both for teaching and learning as well as for research in higher education changed substantially. First, pressure grew on teaching, learning and research to be more utilitarian than in the past as a consequence of higher education expansion and an increasing utilization of systematic knowledge in society, often termed as a trend towards an “information society” or “knowledge society”. Public and private funds were moved increasingly towards research and establishments outside higher education, thus reducing the share of research expenditures spent in higher education in many countries to less than 20 per cent, and, in addition, higher education was expected not to focus all the research on pursuit of knowledge for its own sake. Thus, modes of research spread aiming to cut across disciplines, in spite of the persistence of distinct paradigmatic
approaches and different cultures of the disciplines (Becher 1989), and became
more context aware and problem oriented (Gibbons et al. 1995).

Efforts to respond to the societal needs were often met by reinforcing a divide
between basic and applied research or by a divide between academic and profes-
sional or vocational study programmes, but most experts agree in stating that these
distinctions became blurred over time. While utilitarian pressures turn out to be
imaginative for basic research in some cases, research aiming not to be applied
often lays the foundation for practical use. Study programmes not geared to certain
professions more and more often are enriched by a confrontation with practical
problem solving, both in classes and internships, while study aiming to be profes-
sionally useful is forced to become broader, owing to the uncertainties of future
labour market conditions and work assignments, thus raising the interest in a more
general approach of preparation for future work tasks – “key qualifications” is a
widely used term underpinning this trend.

2.5.4 Internationalization and globalization

Higher education could be viewed as very international, as compared to other
institutions, in terms of a high appreciation of cosmopolitan values, pride based on
international reputation and global search for knowledge. However, the regulatory
and funding context tends to be national, and curricula vary between countries
more strikingly than the extent of universalistic knowledge and international coop-
eration in higher education would suggest. For example, Kerr (1990) described a
conflict between “the internationalization of learning and the nationalization of the
purposes of higher education”. International agencies, e.g. UNESCO, OECD or the
World Bank, played a major role in comparing systems and advocating concepts of
convergence, but seemed to be counterbalanced, at least in part, by a persistence of
varied traditions and political options.

“Vertical” mobility and cooperation, i.e. for the purpose of getting in touch
with a higher level of academic quality than that at home, was already widespread
in preceding decades. For example, the proportion of mobile students world-wide
remained on a level of about two per cent during these years. However, increasing
attention was paid to international students, first, in the wake of a growing number
of U.S., British, and Australian universities increasing their revenue through host-
ing foreign students who can afford substantial costs for their study. Second, the
advantages of being challenged through “horizontal” mobility and cooperation
were successfully stimulated notably by education and science programmes of the
European Union (Teichler 1999b). Finally, trends towards globalization (Scott
1998b) seem to lead to growing pressures for convergence of higher education
systems and towards increased international competition between individual higher
education institutions.
2.5.5 Diversification of student body and modes of teaching and learning

In most higher education institutions, study conditions and provisions are primarily geared to the young full-time student on the campus. Alternative settings and modes are not new, but are increasingly employed in recent years. Institutions of higher education play a more important role recently in lifelong education, and higher education pays more attention to adult learners, provisions for distance higher education expand and consolidate (Guri-Rosenblit 1999), and new technologies increasingly affect higher education to such an extent that some experts forecast a rapid collapse of the traditional settings of higher education institutions and of the established modes of teaching and learning.

2.6 STEERING, GOVERNANCE, AND ORGANIZATION

2.6.1 The deliberately weak and “fuzzy” organization

Universities are often called surprisingly persistent organizations and have survived for several centuries, though they seem to be weak or anarchic institutions in most countries. The links between the higher education institutions and the government or other major actors of society can be described as a peculiar mix of partial control and vague pressures, on the one hand, and safeguards of institutional autonomy on the other hand. In the internal organization, accommodation prevailed in most countries between administrative supervision, a strong position of the professoriate as a whole and the academic freedom of the individual scholar.

The weakness and fuzziness was widely viewed as supportive for an ethos within the institution which allowed the scholars to focus on the pursuit of knowledge and truth without major concern about the social and organizational environment and about the impact of higher education on society. The Humboldtian ideal was widely shared that a university protected from pressures of immediate utility was most likely to serve the generation of knowledge and innovation eventually valuable for society.

2.6.2 Traditional modes of governance and administration

Analyses of higher education governance often intend to describe both the relationships between higher education and society and the modes of governance within the institutions, thus underscoring that the internal mechanisms of power, cooperation, and communication within institutions of higher education cannot be understood without examining the ways how higher education is steered from outside. Notably, U.S. scholars have described higher education systems in the world, as they prevailed until the 1960s, according to “four main models:

- the collegial model – emphasizing non-hierarchical cooperative decision making, and a significant degree of self-determination by academic staff;
- the bureaucratic model – emphasizing legal-rational authority and formal hierarchies;