Integration and Public Steering

I. Bleiklie

*Presented at the Regional Seminar "Globalizing Knowledge:
European and North American Regions and Policies addressing
the Priority Issues of other UNESCO Regions"*

5-6 March 2007
UNESCO Headquarters, Paris

Integration and public steering

By Ivar Bleiklie 2007

Introduction[1]

As higher education systems in much of the Western world have become steadily more integrated questions relating to their organization have been brought into focus. Changing beliefs within national governments and among university leaders about how such systems ought to be organized have been an important driving force of change. One aspect of this development has been formed by the ideal of universities as market or quasi-market organizations striving to become entrepreneurial in their approach to teaching and research (Clark 1998, Etzkowitz and Leydesdorff 1997, Martin and Etzkowitz 2000, Slaughter and Leslie 1997). Another aspect is the development of national and international knowledge regimes that increasingly lay down the conditions under which universities operate (Bleiklie and Byrkjeflot 2002, Dill and Sporn 1995, Kogan et al. 2001, Levine 2000, Nowotny et al. 2001).

The development whereby higher education institutions become part of formally defined higher education systems, is one among a number of change processes that have occurred in the last decades of the last century and still goes on. Hence we may regard this as a period in which higher education systems emerge. This paper primarily deals with the development of national systems in Europe and to some extent in the USA. It is based on the assumption that this process of integration will increasingly be felt as a forceful influence on higher education. Whilst the process is primarily driven by actors at the national level such as political authorities or other institution owner and funders, they are affected by national and as well as supranational organizations like OECD, Unesco, WTO and international developments. The process has a global reach, along with the introduction of standardized degree systems and attempts at creating stronger leadership structures and systems for institutional evaluation and accreditation in order to turn the institutions into dynamic, entrepreneurial high quality enterprises. The integration of higher education systems therefore, confronts policy makers with at least two important questions. First, how should the relationship between the institutions be organized?

---

1 The article has profited considerably from comments by members of the Regional Scientific Committee for Europe and North America, UNESCO Global Forum on Higher Education, Research and Knowledge.

Secondly, what are the proper procedures by which the integration ought to take place? This article seeks to analyze how higher education systems have responded to these questions.

The relationship between higher education institutions – be it universities, specialized vocational schools or liberal arts colleges – is determined by the interaction of two phenomena. First, higher education institutions have different *functions* – they perform different tasks depending on the kind of education they provide in terms of subjects or topics in which they specialise (e.g. disciplinary subjects such as natural sciences, social sciences or humanities or professional subjects like law, medicine, dentistry, psychology, engineering, architecture, nursing, social work, teaching etc.) When we consider different educations from this perspective they cannot be judged against one common denominator in terms of importance or status. Each function is unique and must be fulfilled in order for the whole to function adequately. Consequntly, all higher education institutions may be considered equal but different. This phenomenon results in what Teichler (1988, 2005) calls horizontal diversity. Secondly, however, institutions tend in fact to be measured against a number of common denominators that form the basis of more or less steep *hierarchies* of institutions within national systems, based on e.g. "quality" of teaching and research, selectivity at entry, achievement levels of students, professional success of graduates, reputation of researchers and the like. The position of a given institution in the hierarchy is determined by its score on a specific set of characteristics by which all institutions are evaluated. This phenomenon results in vertical diversity according to Teichler (1988, 2005).

The growth and integration of higher education systems are generally characterized by two movements: As the systems expanded they became more comprehensive, and where earlier only universities and specialised university level institutions were included, they now often include all post secondary institutions such as colleges for teacher, engineering, nursing, social worker education and similar instititutions in addition to liberal teaching oriented colleges. This has added to their horizontal complexity. However, this increased horizontal complexity within a formally defined system brings institutions that previously did not have any contact into view of one another and often into competition for resources be it public money, research grants, the best students or faculty etc. Within public systems this competitive situation is often countered by

organizational means, as institutions and governments are seeking ways of determining the principles for a hierarchical order that regulates access to funds, in particular research funds, for the institutions. One example of such a principle is to build binary systems whereby research universities and similar institutions with access to research funds are distinguished from teaching oriented colleges institutions with limited or none acess to such funds. The English Research Assessment Excersises represent another example. Free competition among institutions represents yet another principle for regulation of hierarchies. This illustrates that as authorities try to regulate the relationship between institutions horizontally and vertically, they may do so in a variety of different ways. The question is how current developments affect the options policy makers have.

In the literature on higher education two views are pitted against one another with regard to the development of diversity of higher education systems. One view emphasizes a number of international trends that have been observed the last decades and assumes that higher education systems will converge. International developments such as increased cross national student mobility, the commodification of teaching and research or the European 'Bolgona process', will push higher education systems to become more uniform, less autonomous and more eager to please actual funders be they public authorities, private businesses or students. One should in other words, expect them to aquire a number of common characteristics that neither of them had before (Gibbons et al 1994). Against *the convergence thesis* it has been argued that shared ideologies and notions about how higher education institutions should be organized is not enough. New ideas have been spread, interpreted, developed and implemented in highly institutionalized environments in which norms, traditions and a range of peculiarties of single institutions and national systems produce *path dependencies* that sustain cross national variation by shaping the way in which national responses to international trends have been devised (Bleiklie 2001, Kogan et al. 2000, Musselin 1999). Furthermore within national systems one frequently finds contradictory policies – for instance attempts to develop and sustain both elite and mass education – that tend to make them potentially unstable. In other words, both assumptions about convergence and path dependency may seem insufficient to predict the actual future developments within higher education systems. This is emphasized by Teichler's (2005) observation regarding the Bologna process in Europe. As higher education become somehow more similar

structurally, the connection between structural characteristics and content of higher edcuation becomes looser. How they develop depends on how these contradictions are balanced. Such processes may be easier to understand if we take into account the *knowledge regimes* and changes within such regimes that are likely to shape future developments.

The growing size of higer education systems also raises the question if there is a size beyond which it is impossible to steer and integrate such systems. If the answer is yes we should expect to find that higher education systems increasingly are integrated at the national level only in relatively small nations (e.g. Denmark, Finland, Netherlands, Norway, Sweden) whereas they are integrated at the regional level in larger nations (e.g. France, Germany and the UK). Thus in a massified system, we may assume that the tension between centralization and decentralization is solved differently in small and large countries. Where the former centralize nationally, the latter centralize regionally and decentralize nationally. However, students of New Public Management techniques that have been introduced the last 15-20 years, suggest another type of mechanisms for solving the tension between centralization and decentralization that in no way exclude the former. They argue that whereas responsibilities for problem solution have been decentralized, power has been increasingly centralized. Both these observations suggest that actual ways in which higher education systems handle the tension between centralization and decentralization vary. Thus increasing size of national systems may represent a push for regionalization in big countries, but will interact with institutionalized traditions for organizing higher education systems and the ways in which they historically have handled centralization and decentralization issues. Thus we may observe that a relatively small country like Switzerland, organizes higher education regionally as part of its general federal political organizational structure.

The complexity of institutional landscapes within higher education systems

It is commonplace to assume that the integration of higher education systems has had very specific consequences for the position of institutions in relation to one another and in relation to the state. One important set of consequences turn on the question of institutional *autonomy*, which in this context turns on the extent to which the institutions themselves are free to make choices and formulate strategies that shape the relationship.

One standard assumption goes more or less like this. Before the integration process started institutions were relatively autonomous in relation to one another and in relation to political authorities in public systems. During the integration process a hierarchical order has started to emerge. The reason for this development is that organizational integration implies standardization, as a common set of formal rules for determining positions in a rank order, and uniform principles for how the relationship between the institutions should be organized by means of such devices as common degree and career structures have been established. The assumption easily follows that the hierarchical order eventually completely will replace the functional, specialized order. Ultimately then, higher education systems around the world will gradually get more and more similar to steeply hierarchical higher education systems like the USA one. The integration process seems to imply furthermore, that public authorities through legislation and other measures increasingly interfere in order to achieve an integration by which very diverse institutions are required to adapt to and being rank ordered in a hierarchy of prestige with other institutions that they initially consider quite different from themselves.

There are two important political-economic concerns that may push such a development. The first concern is that the level of education in the population affects the comptitiveness of a nation. Prevailing beliefs seem to indicate that in order to elevate the level of education one must raise academic standards as they are laid down by the most prestigious research universities. The logical implication of this line of reasoning is that the higher the ratio of doctoral degrees in a population, the better. The second concern is that higher education systems need to be flexible in order to be efficient. In addition to offering the possibility of specialization in specific disciplines, students should have the opportunity to combine a wide array of subjects from different disciplines – whether they do this within one institution or by moving from one institution to another – as the economic situation and employment situation change. This will make the institutions more efficient, and the candidates they produce more well adjusted to the needs of the labor market. In order to do this there must be a common degree structure and a common system of student evaluation and grading across all types of education.

Until quite recently however, there where clear distinctions both between categories of institutions such as research universities, liberal colleges and vocational

colleges and between types of institutions within the same categories, such as e.g. teacher, engineering and nursing colleges. The degree systems were incompatible and credits not transferrable. In order to address these concerns one has to develop common formal standards.

There are ample reasons to believe that the real picture is somewhat more complicated than the above assumption indicates (Etzkowitz and Leydesdorff 1997, Kogan et al. 2000, Musselin 1999).

Firstly institutions within today's integrated higher education systems constitute a complex set, in which different categories of institutions have had varying relationships with public authorities and demonstrate considerable variation with respect to their degree of autonomy.[2] This might for instance imply that to the extent that common norms of institutional autonomy are established within a unified system, some institutions may lose whilst others may gain autonomy compared to what they previously enjoyed. Yet another possibility is that the formal integration does not succeed in creating uniform practices. Consequently binary systems like the ones that prevailed in countries like England, Germany, Finland and Norway in the 1970s and 1980s may still be de facto operating, and former research universities may continue to enjoy more autonomy than vocational and liberal arts colleges even in those cases where the latter have formally become elevated to university status.

Secondly, institutions may try to adapt to the integration process by means of different strategies. While some institutions may accept the conditions laid down by the formal hierarchy, others may seek to maintain their autonomy, cultivate their specialties and gain acceptance as representatives of some kind of specialized knowledge that is distinguishable first and foremost by fullfilling a specific function rather than being part of a hierarchical order.

Thirdly, national systems vary considerably with regard to their degree of hierarchisation both across categories of institutions and within categories. Teichler (1988: 51-75) provides examples of how countries like Australia, Britain, France, Japan and the Netherlands during the 1970s and early 1980s developed quite different structural

---

2 This holds in particular true for the US case because of its size and diversity with private top research universities like Harvard, MIT and Stanford, state systems such as California, New York or Illinois that comprise top research universities, less exclusive state universities, and open access vocationally oriented community colleges.

arrangments for organizing the relationship between categories of institutions within their higher education systems. Whilst the American, English and Japanese systems have been hierarchical in the sense that there within the same category of intsitutions (e.g. research universities) are clear differences in prestige, perceived quality and selectiveness, the German and Scandinavian systems have been considered examples of non-hierarchic arrangements in which all universities (or institutions within any given category) are considered roughly equal in terms of prestige and quality.

Fourthly, knowledge has gained importance in society, amongst other things because of the emergence of mass education and steadily more extensive use of research in private business as well as public administration. This contributes to rendering the interrelations between society and educational institutions more diverse and complicated. The criteria of valuation have become more complex, making it difficult to classify institutions in relation to one another in terms of simple, unambigous functional or hierarchical principles (Bleiklie and Byrkjeflot 2002; Nowotny et al. 2001).

The argument put forward here is that even if higher education institutions are brought under one formally unitary and hierachical system, the two types of order will continue to co-exist, they will be supported and sustained by diverse forces that partly pull in the same direction and partly in opposite directions (Clark 1983). Furthermore, as I shall return to later, the constellations of these forces are likely to vary across systems so that processes facing hierarchical systems such as the US or English systems, may differ from those which may face egalitarian systems like the German or Scandinavian ones.

What do we need to learn – occupational knowledge or the ability to learn?

As already indicated, higher education integration tends to come with conflicting principles for institutional order, as recent developments have demonstrated in a number of countries (Bleiklie and Byrkjeflot 2002, Kogan et al 2000). There are forces that clearly push for standardization and hierachization.Yet, institutions are different in a number of important respects because they educate students for different occupations, are rooted in different traditions of education and occupational training and have ties with different parts of the labor market with their corresponding occupational or professional groups. These factors limit the extent to which it is possible to move unequivocally

towards a hierarchical system because many institutions may feel compelled to cultivate their peculiar form of occupational training whether they want to or not. Furthermore, these institutions are likely to prefer cultivating particular skills in the future as well, and this ambition is likely to remain alongside the goal of making the highest possible score in the overall competition for resources and prestige among institutions.

The two kinds of order do not only express an abstract organizational principle that can be implemented without problems through political reforms, but represent a more comprehensive and complex set of social relations. I am not going to give a detailed description of such relations here, but would like to point out some characteristics that may be useful for further analysis. The point of departure is the following proposition: The individual peculiarties of higher education institutions are to a large extent determined by their relations with the labor market. Education may mean that students are taught a specific occupational skill, where the content of their education by and large is determined by what is considered the knowledge for the conduct of the occupation. This is the kind of education that characterizes many vocational colleges e.g. in nursing or engineering. However, education may also have as its purpose to teach students a specific academic discipline that is considered to provide no other direct occupational knowledge than teaching and research within the discipline itself. When we talk about the value of this kind of education on the labor market beyond the specific research and teaching qualifications it may provide, we often think of more general abilities that may be useful in a range of different occupations. I am referring to such qualities as the ability to work independently, to plan and to collect, analyze and present large quantities of information about complex subject matters. These are abilities that tend to be cultivated by academic disciplines at the so called free university faculties.

An education system that consists exclusively of vocational institutions – each one with its particular criteria of valuation of qualifications related to the ability to exercise a specific profession – has cultivated a purely horizontally diversifed, specialized model. An educational system that is made up by integrated disciplinary courses within a unitary system of degrees, exams and qualification criteria in which students may compose individual educational tracks, based on courses in different disciplines, has cultivated a purely hierarchically diversifies model.

However, the educational ideals that characterize and shape higher education

systems and specific educations within them, are dynamic, as are the requirements of the labor market. The degree of vocational specialization as opposed to liberal generalist orientation may vary along a number of dimensions:

a) Variation across disciplines or subject areas may be illustrated by the difference between degree studies in arts and sciences or liberal undergraduate college education on the one hand as opposed to professional degree studies in medicine, law and enginering or vocational college education on the other. The aim of the former is to educate students in disciplines that may be combined with other subjects in a degree study that constitute a complete education through which students aquire general skills which may qualify them for a number of different occupations. The aim of the latter is not just to educate students for specific occupations, the education is also the way in which new recruits qualify for membership in and are introduced to a community of praticioners. Members of the occupation or the professional association may also take an interest in and try to influence educational programs and capacity in order to improve the quality and regulate supply and protect the market position of the profession.

b) Variation over time takes place as the notions about the functions of higher education evolve. During the 1980s, in a period characterized by dwindeling or stagnating student numbers and budgets, there was a drive in many countries in the Western world to make higher education more vocationally oriented. The argument won acceptance that society needed more manpower skilled specificly for clearly defined occupational roles, rather then generalists. This justified an expansion of short cyckle vocationally oriented studies, particularly in business administration (Berg1992, Gellert and Rau 1992, Lamoure and Lamoure Rontopoulou 1992, Neave 1992, Pratt 1992, Vabø 1994). In the late 1988s and early 1990s, this argument was turned around by educational reformers, arguing that what society needed was as highly qualified a work force as possible. In a highly competitive, mobile and knowledge driven economy, a flexible, highly qualified, independent and entrpreneurial work force is called for. The best way to achieve such a goal was to produce as many candidates as possible at the highest possible level of qualification. This argument justified renewed emphasis on graduate education, particularly at the doctoral level (Bleiklie, Høstaker and Vabø 2000).

c) Variation across countries demonstrates that there are distinct educational traditions in which countries differ as to the importance and prestige that is accorded to

vocational specialization versus generalist qualifications. The education system as well as occupational life may reflect this in various ways. Leadership selecetion is one case in point. Whereas German leaders of industry traditionally have been technical experts (engineers), English leaders have tended to have liberal arts education, preferrably from top Universities like Oxford or Cambridge. This also illustrates that the degrees of 'specialization' and 'generalization' are not given inherent characterics of an education or an occupation, but reflects how they are socially constructed. By social social construction in this case I mean what aspects of an the occupational role is emphasized in different education systems and how the links between the education system, various occupational roles and the labor market are established in different societies. Furthermore educational systems may organize their educational programs and degree systems in highly different manners. Teichler (1988) demonstrated that there may be a wide variety of ways in which short cykle and graduate studies, as well as the relations between institutions by which they are provided, may be organized. He analyzed a number of such organizational forms that he considered approximations of a 'diversified model' of higher education. By 'diversified' he roughly meant a system: 1) that is made up by a multitude of educational environments catering to a wide range of educational needs from the classic highly academic to more immediate vocational needs, 2) that has a relatively steep hierarchy of institutions or course programs according to academic 'quality', 3) that has an elite sector within the hierarchy in which education is closely linked to research and shaped by academic disciplines, 4) in which institutions and course programs are diversified not merely 'vertically' according to rank, but also differ substantially 'horizontally' as to their 'character', goals, content of courses and typical competencies fostered, 5) in which the overall setting of institutions and course programs is dynamic in providing permeability for the students, in blurred boundaries between sectors and in relatively frequent changes of ranks between institutions and units over a period of time (Teichler 1988: 55f). He distinguished between systems according to how they deviate from the standard diversified model: a) a hiearchical system with one or two institutions considered the leading ones and a limited variety of institutional types (Japan), b) a binary system with a clear distinction, but also permeability between autonomous universities on the one hand and predominantly locally controlled public polytechnics and other colleges on the other (Britain), c) a supplemented binary structure in which

universities and colleges of advanced education were supplemented with a third sector, institutions for technical and further education (Australia), d) a heterogenous system in which clearly segmented functional divisions exists such as an elite-training sector (Grandes Ecoles), a vocationally oriented sector, the socializing sector and the academic sector (France), and e) a system of clearly distinct institutional types, the university and non-university sectors with little permeability (Netherlands).

Institutional integration whereby higher education institutions in a number of countries in recent years have been brought under common public, legislative and budgetary systems, has contributed to pushing higher education systems in the direction of more hierarchical structures. This means that formal criteria have been developed and introduced in order to formalize a rank order between categories of institutions. An early American example of this is the "California Master Plan" from 1960 which regulates the specialization and function of the institutions within the California system: the research universities (University of California institutions), universities emphasizing applied research and teaching (State universities), liberal or vocational short cycle undergraduate level teaching institutions (Community colleges) (Kerr 1995, Rothblatt 1992). The hierarchy is organized according to what degrees an institution is entitled to give (doctoral, master level, bachelor level), the research component and the selectiveness of student admission, from the highly selective top research universities to non-selective community colleges (Altbach et al. 2001). Several European countries (England, Germany and Norway) introduced binary divisions in the 1960s whereby university level education and vocational and short cycle college education were organized separately. However, the divisions tended to break down over time, both in the sense that short cycle courses could be integrated parts of university degrees and because institutions in the college sector have tried to expand their teaching programs by introducing university level degrees and to introduce a research component. More recent attempts at formal integration – e.g. by the 29 countries that have signed the 'Bologna declaration' – have aimed at standardizing the degree structure across institutions, opening the system to competition and cross national mobility.

Many of the objections that may be raised in connection with integration of higher education systems may be understood as reactions from disciplinary and professional groups that feel pressured by authorities in their attempts to exercise political-

administrative control. Another set of objections may be caused by assumed or experienced negative effects of institutional mergers of previously separate universities, liberal and/or vocational colleges that bring together radically different educational models. Such mergers has happened in one form or another in countries like Denmark, Norway, South Africa and Sweden. In Norway a number of vocational institutions operating according to a specialized model experienced mergers under an academic hierarchical model as threatening. For instance traditional teacher colleges, emphasizing practical pedagogics, were not too happy at the prospect of being judged by their contributions to academic research (Halvorsen and Michelsen 2002). A number of practically oriented institutions may thus feel threatened by being integrated in a system where they are going to find their place in a hierarchically organized setting according to criteria that are alien to them. To the extent that an institution includes vocationally oriented programs providing skills in demand from specific businesses or client groups, the introduction of evaluation criteria that focus on research are more likely to face resistance. Furthermore, it is not difficult to imagine that important interests in society are likely to be more interested in the ability of candidates to meet the practical requirements of a profession than in their academic excellence.[3] One example may be the preference that employers may have for engineers educated at vocational colleges rather than university educated civil engineers. Whereas the former may be perceived as cheaper, more practically oriented and better at adapting to the needs of the employer, civil engineers may be perceived as more expensive, theoretically oriented and more 'difficult' to adapt. Similarly the replacement that took place in Norway of university educated teachers by college educated teachers in secondary schools in the 1970s was based on the assumption that pupils needed teachers with less disciplinary knowledge and more pedagogical skills. On the other hand an institution dominated by a hierarchical disciplinary model will easily feel threatened at the prospect of being merged with institutions that are likely to challenge the hierarchical model. This may be illustrated by

---

3 The former Norwegian Education Minister Gudmund Hernes expressed this in an interview when he argued that most students are educated to do a practical job and not to do research, " *...it is not a goal in itself that all doctors write articles in the Journal of the Norwegian Medical Association or in The New England Journal of Medicine, but it is quite important that they (surgeons) know where to cut and don't forget the scalpel inside while they're at it."* (Interview 18. Nov. 94). He illustrated the same point by pointing out the he would prefer that college educated cooks know how to make tasty food that can get their restaurants stars in the Michelin guide rather than how to write learned reports on grammatical peculiarities in French menus.

negative reactions from Norwegian research universities against the idea that was floated in the early 1990s of putting an equal emphasis on pedagogical and research qualifications throughout the entire higher education system when making faculty hiring decisions.

However, integration into a higher education system where all institutions may compete for the same resources based on a common set of criteria may also be seen as a set of new opportunities. Vocational and other shorter cyckle institutions may attract new groups of students when it becomes easy to integrate college education with graduate education at a university.

We may assume that the way in which institutions react to integration depends on the extent to which they see their interests better served by a new more integrated system than by the system of yore. This does not necessarily mean that institutions merely look to making a better deal in terms of resources and prestige. Traditions and identity may be equally important for educational institutions when they form their opinion about integration. The main point here is that motives aside, I assume that the actors are goal oriented and that their attitude toward integration is determined by what they believe serves their interests and is compatible with their values. Tensions between theoretical qualifications that serve as criteria for establishing an academic rank order and the demand for practical skills is something that one may find in many educational settings, from high level academic and professional programs to more practically oriented vocational training. Such tensions mean that it is not easy to predict how institutions will respond to reforms aiming at institutional integration.

Although it may be difficult to predict the exact course of future developments, one may be quite confident that the tension between hierarchical and functional principles will live on. The tension is not just found between traditional research universities and vocationally oriented institutions. We find the same tension within research universities as well, clearly expressed for instance during the previously mentioned attempts at 'vocationalization' of university education during the 1980s. However, there are important differences between traditional research universities and colleges, as well as between different types of colleges as to how such tensions are expressed and dealt with.

In relation to the formally fragmented systems that existed previously, the current institutional integration means two things. The introduction of unitary degree and

qualification structures clearly imply standardization and hierarchization based on standards determined by the universities. This again means that it is the academic ideals with their theoretical and methodological requirements that form the basis of valuation and positions within the system. However, the hierarchy is open to mobility on several levels. In Europe student mobility has been strengthened by such things as the introduction of a standardized system for credits (ECTS), thus facilitating (in principle at least) student mobility at the European level as well as nationally. Modularization implies a break with traditional rather ideosyncratic study programs that have been common in a number of countries by breaking the programs down into what is intended to be formally comparable units in a way that greatly facilitates student mobility across institutional and national borders. These developments have opened up some attractive opportunities for non-university institutions that are based on subjects in the arts and sciences or in vocational studies with ambitions to become academic professional studies (e.g. nursing). To the extent that these institutions evaluate themselves in terms of the academic criteria laid down by the univesities, modularization and standardization open up the possibility of upgrading their course programs to university standards. For other more vocationally oriented institutions these standards represent a problem. Colleges that are teaching practical skills necessary to professions like teaching, nursing or engineering, may experience the theory based performance criteria of the university as a threat against the essential character of their education and profession (cf. note 6). The ambiguities and conflicts within and across different institutions are not just an outcome of the differences between vocational subjects and academic disciplines. They may also be understood in terms of the development of the concept of knowledge and the way in which knowledge is developed and appraised in modern societies. As I shall argue below the different concexpts of knowledge discussed above is of direct relevance to hierarchy and speciaization as organizing principles in higher education systems.

Mass higher education and the extended concept of knowledge
The process of integration of higher education systems is easier to understand if it is seen in the context of the transition of higher education from elite to mass system in North America, Europe and elsewhere. The transition meant that a system that for centuries catered to a very small fraction of the population, in the matter of four decades grew from

serving a few percent, to encompassing about one half of each new generation. Research has experienced a similar growth, which means that employers - private companies, organizations and public enterprises - increasingly need research in order to do their job properly. They express this need in various ways. Partly they start to buy or produce their own research. Partly they need research trained employees in order to apply research-based products. But as higher education institutions become more influential because research and scientific values become more widespread in society, they also become exposed to a stronger and more diverse influence from their surroundings - a steadily more informed and better educated public. Thus there is a two-way development of steadily stronger inter-relationships and mutual influences. The development also affects our notions about what research and academic activity is all about. Although this may expose universities to a pressure to be more useful, this utilitarian pressure is not uniform because the needs of those who express them are more varied than ever.

Among the factors that add to the development is the integration of higher education systems and with it the inclusion of a wide array of previously distinct vocational schools into the higher education system. This brings in new constituencies with their often idiosyncratic ideas about knowledge into the higher education system, and contributes to the dilution of traditional scientific conceptions of knowledge. Put differently: as society becomes more 'knowledgeable', higher education comes under pressure to expand the kinds and types of knowledge it provides and to diversify the criteria by which it is judged. This takes place through a series of interrelationships between universities and society. First through education, since higher participation rates mean that increasing ratios of the population gain experience from research and academic culture. This is likely to strengthen ties between higher education and society. Increased use of research, furthermore, may have a number of effects or fill a number of functions. One function is to turn scientific knowledge, "truth oriented knowledge" into practical "utility oriented" knowledge about what works. The belief in the possibility of establishing unbroken links between scientific research, technology development, product development and profitable economic enterprise has received much attention and investment. It has resulted in the establishment of research parks and similar organizational structures in order to bring university research and industry together. But other kinds of knowledge production are also important in this context: in social sciences

and humanities, the applied function of research is in many cases to enlighten or improve the conceptual understanding or empirical underpinning of an issue, e.g. evaluation of a re-organization of public hospitals, rather than provide applicable research findings. In such a case "truth oriented" knowledge has an immediate practical value for the user. None of these forms of knowledge are new. The reason for emphasizing the differences between them is that the forms of knowledge that might be called for by end users may be of different kinds. Consequently the conceptions of 'useful' and 'relevant' knowledge may vary, as may the implications of an increased emphasis on utility.

It is quite common to regard massification as an international process that affected educational systems and societies, at least in the Europe, North America and Austral-Asia, in a uniform way with respect to a number of general characteristics (Ramirez 2003). Increased participation rates made higher education and research important to steadily increasing population groups, but at the same less exclusive and less associated with elevated social status. At the same time the number of higher education faculty grew, and university professors in particular have felt considerably less exclusive than before, as they have experienced a declining income in relative terms and a loss of power and influence inside academia in absolute terms. However, the exact implications of massification have varied across countries depending on what institutional and organizational patterns were developed in order to deal with higher education expansion (Teichler 1988).

The changing social function of the universities, it has been argued, is sometimes confused with their scientific function (Kogan et al. 2000, Nowotny et al. 2001). Whereas there is little evidence to support the notion of deteriorating academic quality in students and faculty, it is obvious that both students and faculty enjoy less social elite status than they used to. Counter strategies aiming at preserving an elitist element within the higher education system by creating binary or stratified systems in a number of European countries have failed. The idea that one can establish and preserve an effective formal division between institutions that are focused on pure research and institutions that are more utility oriented in their approach to knowledge production, in order to protect the former against "external influence", have so far been unsuccessful. Whilst non-university institutions have tried to become research institutions, research universities have never given up more utility oriented, applied research and vocationally oriented education

programs. To the contrary, university-industry ties, particularly for major US research universities, have become increasingly important (Powell and Owen-Smith 1998, Ramirez 2003, Slaughter and Leslie 1997, Turk-Bicakci and Brint 2004). Once established, formal divides between types of higher education institutions have tended to break down. The reason for the failure therefore is that the attempts at isolating the 'scientific' core have been based on premises (the aim of preserving elite status) that underestimated the forces – of 'academic' as well as 'applied drift' – within higher education itself. [4] Put differently: as the 'scientific core' expands, it becomes 'diluted' and infused with 'social', more utilitarian demands and needs. This being said, it is important to keep in mind that the tendencies described above do not mean that higher education systems necessarily are converging. Although they are faced with very similar challenges caused by growth and processes related to growth, we know from comparative studies of reforms and change in higher education that the way in which such problems are handled may differ considerably and often in ways that preserve rather then reduce nationally distinct characteristics (Kogan et al. 2000, Musselin 1999). If we look at the situation in the USA it is somewhat different. Overall, the patterns of specialization as well as the hierarchy seem to be more settled and stable. Among the reasons for this may be the fact that the US system expanded earlier under different economic and social conditions before higher education became 'a mature industry' (Levine 2001); that categories of institutions and the relationships between them have evolved over time and not as part of a master plan (excepting some systems at state level as mentioned previously); and that the US higher education system today is regarded as a model for others to emulate rather than a system that need to learn from others. Finally, one may ask whether the size and diversity of the US higher education system makes it uniquely capable of absorbing growth and change while keeping its basic structural features.

These observations should sensitize us as to the complexity of the relationship between higher education, state and society. They demonstrate how an apparently simple and straightforward process, higher education integration as a response to massification, has become linked to a number of tendencies that raise the question of the consistency as

---

4 This does not mean that such strategies generally are destined to fail. There are examples of successful differentiation strategies, according to some observers, with "The California Master Plan" as the most prominent example (Kerr 1995, Rothblatt 1992).

well as the direction of future developments within higher education systems. So far little has been offered that may explain patterns of variation along the dimensions of hierarchy and specialization save for the initial suggestion of institutional inertia and path dependency. In the following section I shall offer a few suggestions based on the consept of 'knowledge regimes'.

Knowledge regimes, interests and alliances

The previous discussion has emphasized how higher education integration must be understood against the backdrop of massification, expansion and the need to control costs linked to a more utility oriented conception of knowledge. The development described initially, can be seen as the outcome of the struggle to define the true nature of knowledge between actors such as states and politicians, institutional leaders and students, researchers and intellectuals, consultants and business leaders. *Knowledge interests* are therefore the key, together with the linked concepts of *knowledge alliances* and *knowledge regimes*. In order to understand the different trajectories higher education systems have followed I shall distinguish between a few ideal typical constellations of knowledge regimes and the actor constellations and interests on which they are based. Then I shall return to the original question of convergence versus path dependency. Finally I shall draw some implications regarding future developments.

Modern universities and higher education systems are influenced by a number of developments that have implied a thrust in the direction of an extended concept of knowledge and a stronger utility orientation. In the following I shall argue that the new emerging knowledge regimes may be divided into at the least two main groups. On the one hand there is *an academic capitalist regime*, driven by university-industry alliances, economic interests and a commercial logic (Slaughter and Leslie 1997). This regime suggests competition between institutions as mechanism of integrating higher education systems.

However, the way in which public authorities run universities has changed fundamentally, heavily influenced by notions of 'academic capitalism' and 'entrepreneurial universities' which manifests itself in the notion of universities as business enterprises and introduction of quasi-market mechanisms in order to promote competition and cost effectiveness. These *public managerialist regimes* are driven by

university-state alliances, political-administrative interests and a semi-competitive logic based on incentive policies where part of the public support depends on teaching and/or research performance. In general such regimes might be expected to be integrated by some publicly formulated principle that regulates the relationship between institutions. The establishment of a binary divide between to major categories of institutions may serve as a classic example. They come, however, in different versions that may be understood against the backdrop of the previous public regimes they have developed from. Although they in principle were public, different actor constellations, alliances and interests characterized the regimes.

A rather typical phenomenon in recent years is the attempt by public authorities to combine competition and political steering and the establish rules or specific incentives that stimulate and regulate competition accordingly. According to Hood et al. (2004) competition is more used as a steering instrument in Anglo-Saxon countries than in continental Europe. The practical impact of a commercial logic on Western university systems is still limited and concerns mainly a relatively small number of major research universities. In many public systems in Europe a semi-competitive logic between institutions has been introduced in which they compete for students and research funding. This semi-competitive logic has provided an important rationale for the integration of higher education systems. It is still early to determine to what extent it will affect the systems in a uniform way. However, there is a clear variation as the extent to which non-research institutions have been inclined to fully engage themselves in a competition for academic prestige and research funding. Some of the variation I have argued is due to the fact that the identity and criteria of valuation of some institutions keeps them from engaging in a competition defined by a research based hierarchy. In other cases, the small prospects for return on investing in a competition, may serve as an effective deterrent.

Conclusion

The developments addressed in the previous discussion do not answer the initial question about whether we can expect a convergence of higher education systems that will result in higher education systems that are organized according to a hierarchical model or alternatively that national systems develop in different ways depending on how they traditionally have solved tensions between specialization and hierarchy, centralization

and decentralization and between different ideas about education as occupational training or the acquisition of a capacity to learn and adapt flexibly to a complex and dynamic labor market. What we have observed is that national systems are exposed to a similar set of developments such as higher education expansion, the rise of 'knowledge society' and a changed understanding of the purpose of higher education and research. These developments may have profound effects on higher education and research in the future.

Although the development has played out differently in individual countries, there is little doubt that integration and hierarchization have proceeded and become more prominent over the the years. Consequently, the development implies a move away from functionally specialized towards a more hierarchical and horizontally permeable systems. The tendency is most clearly pronounced at the level of ideologies and formal organizational structures. For non-university institutions it will make a difference whether the system as a whole experience massive 'academic drift' and moves in the direction of the research university model, or whether such a movement only affects parts of the system, for instance only academically oriented liberal colleges, as opposed to more vocationally oriented colleges. The former alternative indicates that non-university colleges will eventually become integrated in a hierarchic regime based on academic standing. The latter alternative indicates that hiearchization based on the research university model will have a fragmenting rather than an integrating effect within a higher education system. In this case traditional research universities will have to find their place among institutions with different educational ideals within a system that is more fragmented and more clearly characterized by functional specialization. In such a fragmented system some institutions may want to cultivate their practical and vocationally oriented peculiarities whilst others will commence a process of 'academic drift' and start climbing in the academic hierarchical system. This might eventually lead to more pluralistic higher education systems

It is still a possibility that a further strengthening of hiearchization eventually will lead to fragmentation within higher education systems and the emergence of more varied mixes of functional specialization and hiearchization across national systems. This will eventually counteract the converging tendencies indicated above. One factor that might strengthen fragmentation is the emergence of so-called virtual universities like University of Phoenix that sell tailor made course programs to large companies. Another important

factor that point in the opposite direction is how changes in the economic structure affect alliances between sectors of the economy with occupational groups, educational institutions and the state. One assumption might be based on the observation that much of the institutional specialization within educational systems is based on trades and occupations of the industrial economy. As industrial society fades away and as post-industrial society rises, knowledge alliances between industry, its occupational groups, and the state are likely to be transformed. It is tempting to speculate that since many occupations in the expanding new sectors of the economy – e.g. computer-technology and bio-technology - are based on academic skills and forms of education that more easily lend themselves to integration in hierachical systems, this will weaken specialized knowledge. To what extent this will weaken functional specialization in general is still an open question. Future developments in the organization of higher education systems is therefore likely to be determined by what public authorities, businesses, academic institutions and students define as their knowledge interests and what kind of alliances they will form in the future.

Bibliography

Alexander, J.C. 1982. *Positivism, Presuppositions and Current Controversies. Theoretical Logic in Sociology.* Vol. One. Berkley – Los Angeles: University of California Press.

Altbach, P.G. 2001. "The American Academic Model in Comparative Perspective", in P.G. Altbach, P.J. Gumport and D.B. Johnstone (eds.) *In Defense of American Higher Education.* Baltimore: Johns Hopkins University Press.

Becher, T. 1989. *Academic Tribes and Territories.* Milton Keynes: Open University Press.

Bell, D. 1973. *The Coming of Post-Industrial Society: A Venture in Social Forecasting.* New York: Basic Books.

Berg, L. 1992. "Vocationalism in Norwegian Higher Education: rhetoric or reality?", *European Journal of Education,* 27 (1/2):

Bleiklie, I. 2001. "Towards European Convergence of Higher Education Policy?" *Higher Education Management,* 13 (3): 9-29.

Bleiklie, I. and H. Byrkjeflot 2002. "Changing Knowledge Regimes – Universities in a New Research Environment." *Higher Education,* 44 (2-3): 1-14.

Bleiklie, I., R. Høstaker and A. Vabø 2000. *Policy and Practice in Higher Education: Reforming Norwegian Universities*. London and Philadelphia: Jessica Kingsley.

Clark, B.R 1983: *The Higher Education System.* Berkley, Los Angeles, London: University of California Press.

Clark, B.R 1998. *Creating Entrepreneurial Universities: Organizational Pathways to Transformation.* Oxford, New York, Tokyo: IAU Press/Pergamon.

Dill, D.D., and B.Sporn (eds.) 1995. *Emerging Patterns of Social Demand and University Reform: Through a Glass Darkly.* Oxford: IAU Press - Pergamon.

Etzkowitz, H., and L. Leydesdorff 1997 (eds.) *Universities and the Global Knowledge Economy: A Triple Helix of University-Industry-Government Relations.* London: Cassell.

Gellert, C. and E. Rau 1992. "Diversification and Integration: the vocationalisation of the German higher education system", *European Journal of Education,* 27 (1/2): 89-99.

Gibbons, M., C. Limoges, H. Nowotny, S. Schwartzman, P.Scott and M.Trow 1994. *The New Production of Knowledge. The Dynamics of Science and Research in Contemporary Society.* London - Thousand Oaks – New Dehli: Sage.

T. Halvorsen and S. Michelsen (eds.) 2002. *Faglige forbindelser*, Oslo: Fagbokforlaget.

Keohane, R.O. and J.S. Nye 2000. "Introduction" in J.S. Nye and J.D. Donahue (eds.) *Governance in a Globalizing World*. Washington DC: Brookings Institution Press.

Kerr, C. 1995. *The Uses of the University.* Cambridge: Harvard University Press.

Kogan, M., M. Bauer, I. Bleiklie and M. Henkel (eds.) 2006. *Transforming Higher Education. A Comparative Study.* 2nd edition. Dordrecht: Springer.

Knorr Cetina, K. 1999. *Epistemic Cultures. How Sciences Make Knowledge.* Cambridge, Mass. and London: Harvard University Press.

Lamoure, J. and J. Lamoure Rontopoulou 1992. "The Vocationalisation of Higher Education in France: continutity and change", *European Journal of Education,* 27 (1-2): 45-55.

Levine, A. 2001. "Higher Education as a Mature Industry", in P.G. Altbach, P.J. Gumport and D.B. Johnstone (eds.) *In Defense of American Higher Education.* Baltimore: Johns Hopkins University Press.

Lægreid, P. and O.K. Pedersen (ed.) (1999*) Fra opbygning til ombygning i staten. Organisationsforandringer i tre nordiske lande*. København: Jurist- og Økonomforbundets Forlag.

Martin, B.R. and H. Etzkowitz 2000. "The Origin and Evolution of University Species." *Vest. Journal for Science and Technlogy Studies*. 13, (3-4): 9-34.

Musselin, C. 1999. "State/University Relations and How to Change Them: The Case of France and Germany", in

M.Henkel and B.Little (eds.) *Changing Relationships Between Higher Education and the State*. London and Philadelphia: Jessica Kingsley Publishers.

Neave, G. 1988. "On the Cultivation of Quality, Efficiency and Enterprise: an overview of recent trends in higher

education in Western Europe, 1986-1988, *European Journal of Education,* 23 (1-2): 7-23.

Neave, G. 1992. "On Instantly Consumable Knowledge and Snake Oil", *European Journal of Education,* 27 (1-2): 5-27.

Nowotny, H., P. Scott and M. Gibbons 2001. *Re-Thinking Science. Knowledge and the Public in an Age of Uncertainty.* Cambridge: Polity.

Pollitt, C. 1990. *Managerialism and the Public Services. The Anglo-American Experience.* Oxford: Basil Blackwell.

Powell, W.W. and J. Owen-Smith 1998. "Universities and the Market for Intellectual Property in the Life Sciences", Journal of Policy Analysis and Management, 17 (2): 253-277.

Pratt, J. 1992. "Unification of Higher Education in the United Kingdom", *European Journal of Education,* 27 (1-2): 29-44.

Ramirez, F. 2003. "World Society and the Socially Embedded University." School of Education: Stanford University. (Unpublished paper.)

Readings, B. 1996. *The University in Ruins.* Cambridge, Mass. and London: Harvard University Press.

Rothblatt, S. (ed.) 1992. *The OECD, the MasterPlan and the California Dream.* University of California, Berkeley: Center for Studies in Higher Education.

Slaughter, S. and L. Leslie. 1997. *Academic Capitalism: Politics, Policies and the Entrepreneurial University.* Baltimore: Johns Hopkins University Press.

Teichler, U. 1988. *Changing Patterns of the Higher Education System. The Experience of Three Decades.* London: Jessica Kingsley.

Teichler, U. 2005. "New Patterns of Diversity in Higher Education: Towards a Convergent Knowledge", in I. Bleiklie & M. Henkel (eds.) *Governing Knowledge: a study of continuity and change in higher education.* Dordrecht: Springer.

Turk-Bicacki, L. and S. Brint 2004. "University-Industry Collaboration. Patterns of Growth for Low and Middle-Level Performers." *Higher Education*, 46 (??): …

Vabø, A. 1994. *Universitet og samfunn: Et spenningsforhold sett i lys av yrkesrettingsprosessen*, Bergen: LOS-senterrapport 9405

Weber, M. 1978. *Economy and Society.* Berkeley, Los Angeles, London: University of California Press.