Reflections on the Transition from Elite to Mass to Universal Access: Forms and Phases of Higher Education in Modern Societies since WWII

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Introduction

This chapter seeks to reflect and update a set of concepts, first introduced over 30 years ago, regarding the transformation of higher education (Trow, 1973).[1] The ideas of this original essay, as nicely summed up recently by British author John Brennan (2004), illustrate three forms of higher education: (1) elite—shaping the mind and character of a ruling class; preparation for elite roles; (2) mass—transmission of skills and preparation for a broader range of technical and economic elite roles; and (3) universal—adaptation of the 'whole population' to rapid social and technological change. Table 1 (p.63) provides a useful summary of these stages of higher education development. Brennan observes that "While these may not capture all of the nuances of current higher education debates, they nevertheless appear to be remarkably prescient of some of the key issues that we face as we embark in the UK on the move, in Trow's terms, from mass to universal higher education . It should also be emphasized that Trow never saw these distinctions as empirical descriptions of real higher education systems, rather as models or 'ideal types' to aid our comprehension of such systems. And a further point to remember is that although he saw these forms as sequential stages, he did not regard it as inevitable that the later stages would completely replace the earlier ones. In particular, he saw definite possibilities of examples of elite forms surviving in the mass and universal stages."[2]

Three decades later, this chapter revisits some of these concepts and models, exploring the question of their continuing usefulness in understanding modern systems of higher education, so much larger, more diverse and complex than the systems the earlier paper addressed. And it raises the question of whether and where those concepts would need to be modified to illuminate

contemporary conditions—and even whether that is possible—and highlight these themes within the context of recent developments in Europe.

Table 1 Here

Aspects of Growth

WWII was the watershed event for higher education in modern democratic societies. Those societies came out of the war with levels of enrollment that had been roughly constant at 3-5% of the relevant age groups during the decades before the war. But after the war, great social and political changes arising out of the successful war against Fascism created a growing demand in European and American economies for increasing numbers of graduates with more than a secondary school education. And the demand that rose in those societies for entry to higher education extended to groups and strata that had not thought of going to university before the war. These demands resulted in a very rapid expansion of the systems of higher education, beginning in the 1960s and developing very rapidly though unevenly in the 70s and 80s.

The growth of higher education manifests itself in at least three quite different ways, and these in turn have given rise to different sets of problems. There was first the *rate of growth*: in many countries of Western Europe the numbers of students in higher education doubled within five-year periods during the decade of the sixties and doubled again in seven, eight, or ten years by the middle of the 1970s. Second, growth obviously affected the *absolute size* both of systems and individual institutions. And third, growth was reflected in changes in the *proportion of the relevant age group* enrolled in institutions of higher education.

Each of these manifestations of growth carried its own peculiar problems in its wake. For example a high growth rate placed great strains on the existing structures of governance, of administration, and above all of socialization. When a very large proportion of all the members of an institution are new recruits, they threaten to overwhelm the processes whereby recruits to a more slowly growing system are inducted into its value system and learn its norms and forms. When a faculty or department grows from, say, 5 to 20 members within three or four years, and when the new staff are predominantly young men and women fresh from postgraduate study, then they largely define the norms of academic life in that faculty and its standards. And if the postgraduate student population also grows rapidly and there is loss of a close apprenticeship relationship between faculty members and students, then the student culture becomes the chief socializing force for new postgraduate students, with consequences for the intellectual and academic life of the institution—this was seen in America as well as in France, Italy, West Germany, and Japan. High growth rates increased the chances for academic innovation; they also weakened the forms and processes by which teachers and students are inducted into a community of scholars during periods of stability or slow growth. In the sixties and seventies of the last century, European universities saw marked changes in their governance arrangements, with the empowerment of junior faculty and to some degree of students as well. They also saw higher levels of student discontent, reflecting the weakening of traditional forms of academic communities.

Growth also manifested itself in the growing proportions of the relevant age groups enrolled in institutions of higher education. In many European countries, that proportion, just after World War II, was about 4 or 5%; only 25 years later it reached between 10 and 20%. By 2000, the figures in most European countries were up around 30%, and going higher.

The expansion of European higher education after WWII was both large and rapid. For example, Sweden had 14,000 university students in 1947. By 1960, the number had more than doubled to 35,000; by 1965, it had doubled again to about 70,000, with another doubling by 1971, when university students comprised about 24% of the relevant age group. France saw an equally dramatic growth in its university population, from 200,000 in 1960 to over 400,000 in 1965, with another doubling by the mid-seventies (reaching an enrollment of about 17% of the relevant age group). Denmark doubled its university student population between 1960 and 1966, from 19,000 to 34,000; by the mid-seventies, it had doubled again to 70,000, about 13% of the age group. In the United Kingdom, the Robbins Report anticipated university enrollments growing from about 130,000 in 1962 to 220,000 by 1973 and to nearly 350,000 by 1980. In reality, nearly 400,000 (about 13% of the relevant age group) were enrolled in all forms of full-time higher education by 1973, and somewhere between 800,000 and 1,000,000 by 1981 (with roughly half in universities). By the year 2000, following the merger of the polytechnics and the universities, enrollments in all forms of higher education in the UK had reached over 2.1 million.[3]

Growth in the proportions of the population that have access to higher education raises a number of questions central to the issue of the nature and functions of higher education. For example, the proportions entering higher education in every country vary sharply in different regional groups, religious and ethnic groups, and socioeconomic classes. Everywhere the proportions from the upper and middle classes are still significantly higher than from the working classes or farmers, despite a generation of efforts to close that gap. When the proportions of an age group going into higher education were very small, the political issue of equality in educational opportunity was centered much more on higher primary and secondary

education. But the higher the proportion of the age group going on to higher education, the more the democratic and egalitarian concerns for equality of opportunity come to center on the increasingly important sector of tertiary education. These differences in access to higher education, which were not reduced but rather increased during the early stages of expansion, become a sharp political issue within the context of the democratic and egalitarian values that are increasingly strong in Western European countries, and these values created strong pressures for reducing these differences in group rates of enrollment. In many countries governments introduced policies of "affirmative action" designed to increase the proportions of students from lower income strata. The more important access to higher education becomes for the life chances of large number of students, the stronger these pressures become. The persistent tendency of intellectually elite institutions such as the universities to be both the home and the source of the social and economic elite is a major source of tension between the institutions of higher education, still in principle meritocratic, and the increasingly strong egalitarian values of Wesstern society.

The irony of course is that while universities in Western democracies became increasingly meritocratic during the 20th century, especially after WW II, the societies around them became increasingly egalitarian.

The rising rate of enrollment of a particular age group has another important significance, one not so directly political. As more students from an age cohort go to college or university each year, the meaning of college attendance changes—first from being a privilege to being a right, and then, as was true first in the United States and now in the EU, to being something close to an obligation for students in some class and ethnic groups. This shift in the meaning and

significance of attendance in the tertiary sector has enormous consequences for student motivation, and thus also for the curriculum and for the intellectual climate of these institutions.

Phases in the Development of Higher Education

What the numbers (reflecting the rapid growth of higher education after WWII in all advanced industrial societies) conceal are two fundamentally different processes. One of these was the expansion of the elite universities—the growth of traditional university functions in the traditional, if somewhat modified, forms of universities. The other was the transformation of elite university systems into systems of mass higher education, performing a great variety of new functions (at least new to universities) for a much larger proportion of the university age group.

As enrollments in the higher education institutions of every rich democracy grew in the post-war years, from 5% just before and after the War to 30-50% of the relevant age groups at the turn of the millennium, they passed through several phases. We can refer to these as the phases of elite and then mass higher education, phases which currently are opening up even further to become systems of universal access. Since this model of phases and phase transitions in higher education was first developed in the early 1970s,[4] the proportions enrolled in higher education become more and more difficult to define with any precision, for several reasons. First, the diversification of higher education—of students, studies and institutions—makes it more difficult to identify institutions as centering primarily on elite, mass, or universal access forms of higher education; many institutions provide recognizable forms of all three side by side in the same institution. Moreover, the possibility of enrolling for studies in higher education throughout life makes it impossible in principle, and increasingly difficult in practice, to ever

determine what proportion of an age cohort has ever been exposed to some kind of post-secondary education or taken a degree, until all the members of the age cohort have died.

Differences in the structure and traditions of different national systems make generalization across national lines suspect. For example, the universities of the UK and of Sweden would seem to resemble one another closely, in their attention to teaching AND research, as well as in their concern for the welfare of the students in their institutions. Yet the tradition of British universities (with some exceptions) has been to encourage students to complete their studies toward a degree within three years. Those who leave before taking their degrees are treated as if they had never attended the university, and are referred to collectively as "wastage." By contrast, in Sweden studies in colleges and universities are built around professional "programs" which may or may not have their roots in a single academic discipline, and which aim not so much toward earning a degree as for gaining a qualification in a specific profession or occupation. So it is not unusual, nor is it much decried, when students leave a Swedish university for a job upon completion of the professional course of study in a program, without gaining the academic degree provided for by the same institution.

Nevertheless, it still remains useful, especially in looking back over the past half century, to refer to a model of growth—along with its sources and consequences for three different forms of higher education—of sufficient generality to apply to different national systems over this time period. But it is fair to question whether that model will be as useful in predicting developments over the next half century as it has been over the past half century.

In Britain, as on the European Continent, growth in the early years of expansion was achieved mainly by expanding the elite university system. But the old institutions could not expand indefinitely; they were limited by their traditions, organizations, functions, and finance.

In European countries, an increased enrollment in higher education beyond about 15% of the relevant age group required not merely the further expansion of the elite university systems, but the rapid development of mass higher education through the growth of popular non-elite institutions. Systems of mass higher education differed from systems composed predominantly of elite higher education not just quantitatively but also qualitatively. They differed obviously in the proportions of the relevant age group that they enrolled, but also in the ways in which students and teachers viewed attendance in university or college; in the functions of gaining entry for the student; in the functions of the system for the society; in their curricula; in the typical student's career; in the degree of student homogeneity; in the character of academic standards; in the size of institutions; in the forms of instruction; in the relationships between students and faculty; in the nature of institutional boundaries; in the patterns of institutional administration and governance; and in the principles and procedures for selecting both students and staff. In other words, the differences between these phases are quite fundamental and relate to every aspect of higher education. Let us look at each of these aspects of higher education in its several phases a little more closely.

On the Changing Nature of Elite Higher Education

To reflect on the changes over this past half century, it will be useful to consider the nature of elite higher education in traditional universities, before the great expansions of the sixties and seventies. American and British universities differed in certain important respects from those on the European Continent. They were similar in certain respects, such as in their function of training and educating a relatively small group of future leaders of the society—on the Continent, largely for the civil service, politics and the learned professions, while in the UK, for

the academic staffs of the universities and upper secondary schools, and for the Church, but not (by and large) for the learned professions, to which access was gained more commonly through apprenticeship. But both in the UK and on the Continent, the higher education of the elite in universities was defined both by its cultural content and also by the character of the relationships through which it was carried on. In much of traditional elite higher education, as at Oxford and Cambridge, the two were very closely linked: a certain kind of relation between teacher and student within a community of scholars was designed to teach gentlemen how to live a certain way of life; it was not meant to train young persons for specific occupations. Indeed, it rather looked down on that.

Elite higher education as the education of a gentleman for a style of life appropriate to a certain status in society was contrasted sharply with the training of experts for specific occupations. The education of a gentleman (UK) or of a broadly cultivated man (Continent) were both intended to prepare for a variety of leadership roles, the technical aspects of which could be learned on the job. Max Weber regarded this distinction between the education of the cultivated man and that of the expert as the source of the main conflict emerging in European higher education after WWI. The rise of mass higher education since the Second World War has been widely viewed as the ascendancy of technical and vocational education over liberal and general education.

The rise of science within the university challenged this conception of elite higher education, but there was no way of excluding it, since it was clearly linked to national economic and military power, even if indirectly. And science could be finally accepted as a somewhat subordinate member of the academic community, acceptable so long as it pursued “pure” or “basic” rather than “applied” knowledge. And science borrowed also from the long and

established place of mathematics from classical and medieval times in the curriculum of the university.

But the growth of mass higher education since WWII has led to changes in the character of both liberal and vocational studies, and not merely to the expansion of the latter. The pronounced distinction between them—with elite higher education always taken to mean a form of liberal education, and mass higher education a form of vocational education—no longer obtains. There are many schools and programs, both undergraduate and graduate, which are very much oriented towards specialized training for careers in government or industry, and yet are carried on through a pattern of relations between students and teachers which is not much different from that which characterized the collegiate arrangements at Oxford or Cambridge. The emphasis on the transmission of a general culture and a style of life was a characteristic feature of the traditional forms of elite higher education. However, this may mislead us in our search for its descendants today. I think that we will still find forms of elite higher education in the *grandes ecoles,* in the advanced research seminars of the German universities, in the graduate departments and some of the professional schools of American universities, in the undergraduate courses of study at the Massachusetts Institute of Technology as well as in the undergraduate colleges of Harvard and Chicago Universities, in the leading American liberal arts colleges, and some of the undergraduate studies at British universities. In these schools and graduate departments, relationships are broad rather than narrow; the teachers are concerned with the values and character of the students; teachers and students often meet outside the setting of formal instruction; their concerns when they meet are not confined to what is contained in syllabus and lectures. They are places for socialization—for the shaping of mind and character, and not merely the transmission of information, skills and knowledge. Elite higher education

today has more to do with the forms of teaching and learning, with the settings in which it is carried on, and with the relations of teacher and student, than it does with the content of the curriculum.

What do these quite varied kinds of elite higher education have in common today? Surely not a commitment to the cultivation of the particular qualities of mind and bearing which marked the traditional collegiate ideal at Oxford and Cambridge. The higher education of elites over the 100 years between 1850 and 1950 rested on a broad consensus among educated persons about what knowledge was of most worth, and what qualities of mind and character should be possessed by the educated person. Before WWII, notions in Europe and America about what characterized an educated person changed over time, and differed to some extent from one society to another, and even to some extent between parts of the same society. Nevertheless, there was some agreement on the question. Today, there is no agreement on what is the irreducible and essential content of higher education for an elite, and we are required to describe it more by reference to its forms than to its content.

Under present-day circumstances, then, elite forms of higher education are no longer uniformly marked by attempts to infuse a general moral and cultural outlook, by efforts to shape qualities of mind and feeling, attitudes and character. It may also try to transmit skills and knowledge, but that is not what makes it "elite higher education" in the sense that we have been using the term both to characterize a kind of education and a kind of institution in which it was most commonly experienced. This kind of education is still carried on through a relatively close and prolonged relationship between student and teacher, and depends on the creation and maintenance of settings within which such a relationship can exist. Whatever the specific content of the course of study and syllabus—and that indeed varies very widely—this form of higher

education conveys (and intends to convey) to students that they can accomplish large and important things in the world, that they can make important discoveries, lead great institutions, influence their country's laws and government, and add substantially to knowledge. In this sense, institutions of elite higher education are arrangements for raising ambition and for providing social support and intellectual resources for the achievement of ambition. By contrast, mass higher education is centered on the transmission of skills and knowledge through relations between teachers and students which are briefer and more impersonal, and is designed to prepare students for relatively more modest roles in society, even in such occupations of high status as the learned professions, the civil service, and business management. (Of course, these two types of higher education often overlap or merge imperceptibly into one another.)

Elite higher education makes large demands on students, demands that are implicit in its intention to infuse a moral and cultural outlook, in contrast with the provision of training. It is in severe competition with other formations and institutions in society which also make large demands on the young person—for example, the family, careers, groups of peers, and radical political movements. Elite higher education thus has placed students at odds with other kinds of obligations, and generated forms of tension in ways which mass higher education does not. It also tries to provide greater social and psychological support for students who are exposed to these normative demands and emotional strains. Thus, to perform its tasks, elite higher education has been more likely to be residential than is mass higher education, or at least to be lived within a close and supportive academic community. For the same reasons, it was an activity to which the student was formerly expected give all his time, at least during the school term. The financial burdens of university life, and the greater presence of students from modest homes in the university, has made paid work during the university study year much more widely necessary

and accepted. Similarly, as elite higher education was thought to be incompatible with paid work, it was also thought to be incompatible with student marriage (and in the UK, for much of the 19th century, for marriage by teachers.) Work and family present conflicting commitments and obligations, and interfere with the socialization most effectively accomplished in near totally encompassing social institutions.

In contemporary elite institutions we can see the survival of the forms and structures of the traditional university, though now much diluted and with less authority in the students' life. Ironically, it is most closely approximated in the graduate schools and advanced seminars of American, British and Continental universities, which are now the centers of intensive socialization to the norms of scholarly and scientific life as well as to the highly specialized skills that now together comprise the professional training of the modern academic doctorate. Meanwhile, with some exceptions, undergraduate education (even in universities) comes more closely to resemble the education provided in parallel departments and subjects in institutions of mass higher education. And the growing demand for easing transfer between institutions and across national boundaries increases the significance and value of a standardized training in subjects, providing students with a basic knowledge and skills in the subject that can be recognized in similar institutions elsewhere.

But if the traditional forms and functions of elite higher education are increasingly attenuated, some special characteristics still attach to the institutions of highest status in every country. One of those is the encouragement of ambition, and the creation of personal ties and links that will help in the pursuit of ambition after leaving the university.

The encouragement of ambition is a central distinguishing characteristic of elite higher education. The institutions which offer this kind of education recruit students who are ambitious;

they then nurture and focus that ambition, and their graduates are disproportionately successful in the competition for positions of leadership in the larger society. In the United States, this is the feature which distinguishes forms of elite higher education from the myriad small, often denominational, liberal arts colleges—institutions which also try to shape character through personal relations between students and teachers. In Britain, the new (formerly polytechnic) universities are now exemplars of the now common multi-functional institutions of higher education. In some are found undergraduate and graduate courses and programs of studies that can hardly be distinguished from their counterparts in Oxbridge, while nearby one can find programs for mature students in one or another of the new semi- professions. In this respect, these former polytechnics closely resemble the many public colleges and universities in the United States, which offer a first degree and a variety of vocationally linked masters degrees, often to mature students, in an atmosphere of serious study and learning but of limited genuine research. And just a little bit further away from some of the old and new British universities are their franchised programs in former Further Education colleges, largely open to nearly all upper secondary school graduates, and resembling two-year community colleges (America's chief institutions of universal access). While these non-research universities (itself an unimaginable idea in 1974) have many strengths and virtues, it is fair to say that they do not encourage high ambition, nor leave students with the sense that they have been prepared to gain the highest levels of leadership in the various institutions of society.

Ambition and its encouragement are only one of the cluster of features which links elite higher education to the status and function of elites in society. We see here how, in academic life as elsewhere, advantage engenders advantage, and through which elite institutions tend to become centers of academic distinction. In the United States, the relatively small numbers of

scholars and scientists who later make significant contributions to their disciplines are disproportionately the graduates of a small number of graduate schools and departments of elite universities. The elements involved are very many, and very hard to disentangle. In general, certain departments of leading universities are known and favored by able and ambitious students, and departments can be highly selective in their policies of admission. In part by virtue of their attractiveness to leading scholars and scientists, these departments are able to give their students a superior education in their respective disciplines. They are then able to place their better graduates on the teaching staffs of their own and other leading departments in their disciplines, and this in turn gives those graduates access to better students, more stimulating colleagues, better resources (such as libraries and laboratories), and more congenial arrangements for learning. The prestige of a degree from a leading department, and of teaching in another such department, gives an individual scientist or scholar access to opportunities for research, which in turn help him or her to make important contributions to the discipline. A young person gains a heightened self-confidence from association with (and approval by) leading figures in the field, and this self-confidence is important in forming the individual's level of intellectual aspiration and heightening his capacity.

While there is surely a relationship between elite higher education, intellectual distinction, and the achievement of leading positions in society's institutions, it must be stressed that they are not identical. Higher education for an elite is not necessarily (or always) intellectually distinguished, nor its graduates uniformly highly successful, nor is academic excellence found only in the institutions which provide an education of the type described here.

Phases in the Development of Higher Education: Aspects of Transition

The transitions between phases in the development of modern higher education systems require changes in all aspects of their structures and functions. As reflected in Brennan's (2004) analysis (see Table 1, earlier in this chapter), important dimensions of change include the size of the system, institutional diversity, access and selection policies, governance and administration, the curriculum and forms of instruction, and academic standards.

Size of the System

Countries that develop a system of elite higher education in modern times seem able to expand it without changing its character in fundamental ways until it is providing places for about 15% of the relevant age group. At that point (or thereabouts) the system begins to change its character; if the transition is made successfully, the system is then able to develop institutions that can grow without being transformed, until they start to admit over 30% of the relevant age group. Beyond that—and in this respect, also led by the United States—large sections of the population are sending nearly all their sons and daughters to some kind of higher education, and the system must again create new forms of higher education as it begins to move rapidly toward universal access. In our increasingly meritocratic societies, personal qualities of talent and initiative come to play a larger role in adult achievement than before. This, perhaps a welcome development, is further (and maybe the most significant) evidence of the decline of the importance of elite higher education in modern life.

Attitudes toward Access

The ease of access to higher education is closely linked to conceptions that people—students and their parents, and increasingly college and university teachers and administrators—have of college and university attendance. When access is highly limited, it is generally seen as a privilege, either of birth or talent, or both. When more than about 15% of the relevant age group have access, people increasingly begin to see entry to higher education as a right for those who have certain formal qualifications. And when the proportion of the country's population entering some form of postsecondary education approaches 50 (and in some sectors of the society, it is then of course much higher), attendance in higher education becomes increasingly seen as an obligation: for children from the middle and upper middle classes—in European countries as well as in the United States—failure to go on to higher education from secondary school is increasingly considered a mark of some defect of mind or character that has to be explained, justified, or apologized for. Moreover, as greater numbers of people go on to higher education, the best jobs and opportunities (and, generally, the economic rewards in life) come to be reserved for people who have completed a university degree, and this greatly contributes to the sense of obligation that is felt by many students upon entry to a higher education institution.

Functions of Higher Education

The different phases are also associated with different functions of higher education, both for students and for society at large. Elite higher education has been concerned primarily with shaping the mind and character of the ruling class, as it prepares students for broad elite roles in government and the learned professions. In mass higher education, the institutions are still preparing elites, but a much broader range of elites that includes the leading strata of all the technical and economic organizations of the society. And the emphasis shifts from the shaping of

character to the transmission of skills for more specific technical elite roles. In institutions marked by universal access, there is concern with the preparation of large numbers for life in an advanced industrial society; they are training not primarily elites (either broadly or narrowly defined), but the whole population, and their chief concern is to maximize the adaptability of that population to a society whose chief characteristic is rapid social and technological change.

The Curriculum and Forms of Instruction

The curriculum and forms of instruction naturally reflect changes in the definition of the meaning of being a student, and of the functions that higher education plays for students and for the society at large. The curriculum in elite institutions has tended to be highly structured, reflecting academic conceptions of the degree course or professional conceptions of professional requirements. The courses of study, shaped largely by the character of the final examination, were on the whole highly specialized, and governed by the professors' notions of what constituted an educated man or a qualified professional. In institutions of mass higher education, the curriculum becomes more modular, marked by semi-structured sequences of courses, with the focus on earning unit credits (the unit of exchange in modular courses), allowing more flexible combinations of courses and easier access and movement between major fields, and indeed among institutions. Unit credits and a modular curriculum are still more common in higher technical colleges than in European universities. Decades of discussion have had little influence onmodularization in the universities; the Bologna initiative addresses that issue directly, with what success remains to be seen.

In universal higher education (as it emerges), there is a survival of the modular course, but increasingly instruction is relatively unstructured; the boundaries of the course itself begin to

break down, as do required sequences of courses. It is very difficult to justify course requirements where no single conception of higher education obtains, and the rejection of academic forms, structures, and standards also extends to examinations and assessment, as distinctions between learning and life become attenuated. This is emphasized for the growing number of students who are studying at a distance, often online and directly or indirectly linked to their jobs. Attendance at the emerging institutions of higher education designed for universal access is merely another kind of experience not qualitatively different from any other experiences in modern society which give one resources for coping with the problems of contemporary life. And, in universal access, since coursework does not clearly qualify people for specific jobs, it is less clear why assessment of performance is necessary.

There are parallel differences in the typical forms of instruction, and thus, in the relationships between student and teacher. In elite systems, the characteristic form of instruction is the tutorial or seminar, marked (on the whole) by a personal relationship between student and teacher. While the distance between the senior professor and the ordinary undergraduate may be very great, his research students are likely to be working with him in a close apprentice relationship. This is compatible with the central function of the shaping of character and the preparation of a broad or general elite, whose specific adult roles and activities would vary widely so that one could hardly train for them in the course of the university career. And the defense of these forms of instruction in the *grandes ecoles* of France, during the period of rapid expansion that filled the lecture rooms of the universities to overflowing, made it clear where the elite functions in France are meant to survive. Under the conditions of mass higher education the emphasis is on the transmission of skills and knowledge, with formal instruction carried on through large lectures often taught by teaching assistants or the growing number of part-time instructors without strong or long-term connections to

the institution. In "universal" higher education, the direct personal relationship of the student and teacher is subordinated to a broad exposure of the student to new or more sophisticated perspectives. There is heavier reliance on distance learning and on other technological aids to instruction. As mass higher education becomes more focused on preparation for jobs and careers, it begins to resemble open access institutions. Open access institutions and teaching in turn come to resemble mass higher education, with even more focus on the vocational training of mature and part-time students by migratory instructors, often at a distance.

The Student "Career"

The academic careers of the students in different forms of higher education differ also. In elite institutions, the student ordinarily enters directly after completion of secondary schooling; the student is "in residence" and continues his work uninterruptedly (except for holidays) until he gains a degree. He is in this sense "sponsored" and in competition only for academic honors. In the mass institution, some students attend immediately after finishing secondary school, although increasing numbers delay entry until after a period of work or travel, and even more return as mature adults. Easier access and a more heterogeneous student population lead to higher "wastage rates." But the students are now a mixed residential-commuting population, as vocational training becomes a larger component of their higher education. In institutions of universal access there is much postponement of entry, "stopping out" of enrollment in any college, and large numbers of students with experience in adult occupations. The emphasis on "lifelong learning" is compatible with the softening of the boundaries between formal education and other forms of life experience.

Moreover, in all the forms of higher education, but especially in the mass and universal forms, as student numbers from poor homes increase, a growing proportion are also working for pay at nonacademic jobs—first during vacations and then during term time. This trend has implications for the meaning of being a student, for the curriculum (less outside reading and study can be assigned or assumed), for student motivations, and for the relationships of students with their teachers. And it is hard to discourage this practice, especially when it is done out of necessity by needy students. It can be ignored when it is the occasional "poor but able" student who has to work for his fees and maintenance. But it is a different institution when the proportion of working students is 30, 40, or 50%, or higher.

Institutional, Characteristics, and Boundaries

Systems at different phases of their development differ also in their diversity. Elite systems tend to be highly homogenous, with the component institutions in a single country very much like one another. They tend to be universities with high and common standards, though they also include highly specialized "technical schools" with special access to parts of the Civil Service. Mass systems began to be more "comprehensive," with more diverse standards, though with some linkages among the several segments of the system that allow mobility of students and staff. In systems of universal access, there is great diversity in the character of component institutions, with no common standards among them. Indeed the very notion of standards is itself challenged and problematical.

Over time, as the number of institutions grew during the transition to a mass system, they became more diverse. The high and common standards that European systems claimed and tried to sustain broke down, despite heroic efforts (as in the UK) to maintain those characteristics of

the old elite system of universities. But the effort under Anthony Crosland (1965066) to achieve diversity of cost as well as of function through prescriptive planning (the binary system) ran against the political forces of equality, the bureaucratic preferences for standardization, and the academic tendency of institutions to model themselves on the most prestigious. Under these pressures the "binary" policy in Britain broke down in 1992 with the merger of universities and polytechnics.

The inclusion in the university world of institutions created and designed for mass functions (as in the merger of universities and polytechnics in the UK) made the old assertions of equal or common standards, even within the same subjects, no longer credible. And when the subjects themselves diversified, recruiting different kinds of students on different criteria and teaching them different curricula, the efforts to claim common standards of excellence or quality in a mass system became derisory.

The typical institutions in the three systems differ in size and character as well. Elite institutions were commonly “communities” that ranged up to two or three thousand students in residence. As they grew, they were likely to be “substructured” so that their component units, like the Oxford and Cambridge colleges, remained relatively small. The lower division “colleges” in big American research universities are examples of this tendency. The real size of units in those institutions differed from their nominal size as a result of the substructuring in small teaching/learning units; many of these had no formal existence, but were created spontaneously by students and teachers. In the European Continental universities, the communities were defined by membership in a department or program, or research lab, or in the advanced seminars led by a particular professor.

The comprehensive institutions that characterize mass higher education are less "communities" than they are "cities of intellect" with up to thirty or forty thousand students (or more) and staff making up a mixed residential and commuting population. Institutions of universal access are unlimited in size; they may be simply aggregates of people enrolled for "instruction," most of whom are rarely or never on the central "campus" except to attend a specific class; they may share little in common and do not in any sense comprise a community rooted in frequent association, shared norms and values, and a sense of common identification. Today, we find "virtual communities" brought together online for a single course or a degree program. We have not yet found the limit to the size of institutions providing distance learning., if there is such a limit.

As we might guess from these trends, elite institutions were (and still tend to be) marked off from the surrounding society by clear and relatively impermeable boundaries, in the extreme case by physical walls. In mass institutions there are still boundaries, but they are more fuzzy and more permeable; there is relatively easy movement in and out of mass institutions, and a much less clear concept of "membership," though there are still formal definitions of membership that are relevant for a variety of academic and nonacademic purposes. In institutions of universal access, boundaries are very weak, shading off to none at all. At some point anyone who may sign on to an online course, or (as the case in most Open Universities) switch on a televised broadcast of a lecture, may be thought of for that moment as being part of an "extended university," and the question of whether he is submitting work regularly or has "matriculated" is of only marginal significance, except for purposes of credentialing.

The Locus of Power and Decision Making

The three types of systems differ in their source of ultimate authority; in the nature of their academic standards; and in their principles of recruitment and selection. With respect both to ultimate power and effective decisions, elite institutions have been governed by relatively small elite groups: leaders in significant institutions—political, economic, and academic—who know one another, share basic values and assumptions, and make decisions through informal face-to-face contact. An example of this would be the small number of leading civil servants, government ministers, university vice-chancellors, and members of the University Grants Commission who shaped the face of the British university system for many years , through meetings in small committee rooms or around tables at the Athenaeum Club. The Boards of Trustees or Regents of elite American colleges and universities are another example. In Europe the powerful groups would be senior professors, senior ministers and civil servants, sometimes members of parliaments who took a special interest in the universities, and maybe (as in Italy) professors themselves. Democratic tendencies, more so in Europe than in the U.S., brought lower level administrative staff and students into the governing boards, but with more symbolic than real significance.

Mass higher education continues to be influenced by these elite groups, but is increasingly shaped by more "democratic" political processes and influenced by "attentive audiences." These are parts of the general public who have special interests and qualifications, and develop a common view about higher education in general or some special aspect, such as the forms and content of technical education. Higher education policies for these kinds of institutions increasingly become subject to the ordinary political processes of interest groups and party programs, reflected among deliberations in state and governmental legislatures. One kind of attentive audience is the employers of the graduates of mass higher education systems, who

are interested in the nature of their skills and qualifications. Another attentive audience is the body of "old graduates" who retain an interest in the character and fortunes of their old college or university. These groups often develop political instrumentalities of their own, such as associations with an elected leadership, and develop lines of communication to the smaller groups in government, legislatures, and in the universities themselves who make the actual decisions, both day-to-day and over the long range.

When the system moves toward universal access, increasingly large portions of the population begin to be affected by it, either through their own past or present attendance, or that of some friend or relative. In addition, the universities and colleges—what is taught there, and the activities of their staff and students—come to be of general interest, not just in the pages of the serious press and magazines, but also reported in the popular journals and on television. They thus attract the interest of mass publics, who increasingly come to see themselves as having a legitimate interest in what goes on in the institutions of higher education, if for no other reason than their enormous public cost and obvious impact on society. And these mass publics begin to make their sentiments known, either through letters to public officials or through their votes in special or general elections.

The change in the size and character of the publics who have an interest in higher education and exert an influence on higher education policy greatly influences the nature and content of the discussions about higher education; particularly, who takes part in them, and the decisions that flow out of them. The claims of academic men to a special expertise, and of their institutions to special privileges and immunities, are increasingly questioned; much of what academic men understand by academic freedom, and the significance of the security of academic tenure for the protection of their pursuit of truth regardless of political interests or popular

sentiment, are all challenged by the growing intervention of popular sentiments into these formerly elite arenas. The weakness of tenure or job security for the teaching staff of open access institutions is a reflection of the weakness of the autonomy of those institutions, which come increasingly to be seen as at the service of other institutions in the society.

Academic Standards

The implications of these transitions for academic standards are equally clear: in elite systems and institutions, at least in their meritocratic phase, these were likely to be broadly shared and relatively high. Currently, as some fields and subjects are increasingly politicized, they vary a good deal between institutions and subjects. In the systems and institutions of mass higher education, standards become variable, differing in severity and character in different parts of the system or institution, appropriately so since both system and institution have become holding companies for quite different kinds of academic enterprises. Again, this illustrates the convergence of elite and mass forms of higher education in modern societies.

In institutions of universal access, there tends to be a different criterion of achievement: not so much the achievement of some academic standard, but whether there has been any "value added" by virtue of the educational experience. That is the justification of universal higher education, as it is of the nonacademic forms of primary and secondary schools; obviously, this changes in a fundamental way the basis for judging individual or institutional activities. For example, if the criterion of success is "value added," it may be better to admit students who are academically very weak, rather than those with a strong record, since presumably it will be easier to raise the performance of those who start low than of those who are already performing well.

That argument is in fact made for the principle of "open access." Whatever substance it has, it does suggest how fundamental is the shift to "universal access."

Access and Selection

The principles of student selection also differ in the different phases. In elite systems, the criterion of ascribed status gave way in most Western societies (more or less rapidly over the past century and a half) to meritocratic achievement measured by secondary school performance or grades on special examinations. Meritocratic criteria are now modified by giving special advantage to what are seen to be disadvantaged sectors: minority ethnic groups, or new immigrants, or poor whites. But so much of the status and achievement of elite universities rests on their recruitment of the ablest students in the society that these marginal departures from the application of universalistic criteria have not yet had much affect on the character of instruction in those institutions, except in specific and especially vulnerable subjects.

In institutions of mass higher education, there is a general acceptance of meritocratic criteria, where access is limited, though the criteria are ordinarily not as severe as in the elite colleges and universities. But this is heavily qualified by a commitment to equality of educational opportunity, leading to "compensatory programs" and the introduction of additional nonacademic criteria designed to reduce "inequities" in the opportunities for admission of deprived social groups and categories. Here, again, we see a narrowing of the differences between elite and mass institutions.

In the institutions of universal higher education, which by definition are wholly "open" either to anyone who wishes to enroll or to those who have certain minimal educational qualifications, the criterion is whether an individual has *chosen* to associate himself with the

institution voluntarily. The aim of universal access is toward the *equality of group achievement* rather than an *equality of individual opportunity,* and efforts are made to achieve a social, class, ethnic, and racial distribution in higher education reflecting that of the population at large. And of course the more closely the system enrolls the entirety of an age group, the better it reflects the distribution of subgroups in the population at large. At the limiting case, of course, it is "democratic" in the same sense that compulsory forms of primary and secondary education are, with surviving variations in the character and quality of the education offered in different places and different kinds of institutions. We can already see hints of this philosophy of admissions, and of these criteria for access, even in the present transitional period between mass and universal access higher education in European countries. Further education is where education meets social justice. Again, in the provision of universal access to its community colleges, the U.S. has led the way.

Forms of Academic Administration

The characteristic institutions in the three systems differ also in their forms of institutional administration. The typical elite university is governed by academics who are essentially amateurs at administration, whether they serve on committees, on Boards, or in legislatures. In some countries, they may have the help of a full-time civil servant or registrar and a staff of experts to deal with matters of finance. But in elite institutions, the head of the administrative staff is commonly an academic elected or appointed to the office for a limited period of time. As institutions become larger and their functions more varied during the transition phase to mass higher education, their administrative staff becomes larger; there is now more commonly a top leadership of men who were formerly academics but who now are clearly full-time university

administrators. And below them there is a large and growing bureaucratic staff of non-academics. As the system grows even further towards universal access, the enormous costs of education generate pressures for greater financial accountability and more sophisticated forms of program management. Universities employ increasingly large numbers of full-time professionals, such as systems analysts and economists knowledgeable about program budgeting, specialists in financing capital growth, and so forth. In that phase, the centralization and rationalization of university administration generates problems. The functions of the institution itself become increasingly more diverse, and its "outputs" more difficult to quantify, just as the management procedures have become more dependent on quantified data for the assessment of costs and benefits. But the data for assessment have to be supplied by those being assessed, which raises questions common to every command economy about the reliability of information coming up from below.

The rationalization of university administration—based on the systematic collection and analysis of quantitative data on the costs of discrete activities, and on measures of the "outputs" or "benefits" of these activities—is a response to the growth in the size and cost of higher education, and to growing demands for public accountability regarding its "efficiency." In their heavy reliance on quantified data, however, these managerial techniques become a powerful independent force working against the survival of elite institutions, and of those functions and activities which cannot be easily justified by reference to quantitative measures, either of their "costs" or "benefits." There is a certain danger in the argument that the development of these managerial techniques, as also of the increasing centralization of control, are "inevitable," given the growth in the size and cost of higher education. An emphasis on the "inevitability" of these trends and forces may preclude our asking the critical

questions: how are these new techniques of administration being applied, what are their consequences, and what are the limits of centralization in relation to institutional autonomy? We should at least be aware of how these techniques may undermine those activities and functions of higher education that cannot be justified by reference to visible and easily measurable "outputs."

But the development of mass higher education does not necessarily involve the destruction of elite institutions or parts of institutions, or their transformation into mass institutions. Indeed, elite forms of higher education continue to perform functions that cannot be performed as well by mass higher education—among them, the education, training, and socialization of very highly selected students for intellectual work at the highest levels of performance and creativity. And as we observe the system of mass higher education in the United States, and the patterns of growth toward mass higher education elsewhere, we see that they involve the creation and extension of functions and activities and institutions rather than the disappearance of the old.

But while elite institutions and centers tend to survive and defend their unique characteristics in the face of the growth and transformation of the system around them, they are not always successful. Their special characteristics and integrity are threatened by those egalitarian values that define all differences as inequities; by the standardizing force of central governmental control; and by the powerful leveling influence of the new forms of rationalized management and administration. The rationaliztion of academic administration is a reflection and a product of the movement toward mass higher education; but it is not neutral toward other forms of higher education. In this respect it works against the diversity of the system that is also a

characteristic—indeed, a central defining characteristic—of mass higher education. And this creates a dilemma for policy makers.

Internal Governance

The forms and processes of internal governance of institutions of higher education vary enormously, from country to country and between institutions. But on the whole, elite institutions almost everywhere (except in the U.S. and UK) were formerly governed by their senior professors who elected a weak part-time rector to chair their meetings; those who did not hold chairs ordinarily played little or no part in major institutional decisions. As institutions grew, non-chair holding academics and nonprofessorial staff increasingly challenged the monopolistic power of what came to be seen as the "professorial oligarchy." And, as seen in institutions of mass higher education as well, internal power in some countries and universities came to be shared to varying degrees with junior staff. Moreover, for a while, during periods of student activism, student leaders claimed a right to influence institutional decisions, and the forms and extent of student participation became a major issue in some places during the transition from elite to mass higher education. But the heavy focus of mass higher education—and of open access institutions—on vocational training and credentialing have muted the demands of activist students to be represented on the decision-making bodies. Students are commonly not enrolled in the same institution long enough to make their voices heard. The ones who do are likely to be deeply immersed in their research studies and dissertations. So the weakness of the academic community in the governance of institutions of mass higher education is filled less by students or junior staff than by agencies of government.

Matters are a bit different in elite universities where the academics are still a force. But there, problems of institutional governance are greatly sharpened by the breakdown of the academic consensus that occurs with growth and the transition from elite to mass higher education. Elite universities, with their narrow traditional range of functions and homogeneous bodies of students and teachers, could formerly assume the broad acceptance by their participants of the basic character and values of the institution. But for elite institutions the move toward mass higher education, with its wider range of functions, means the recruitment of new kinds of students and teachers, from more diverse backgrounds and with more varied views and conceptions of what higher education and their own institutions ought to be. At the same time, junior staff, whose interests and attitudes often differ sharply from those of the senior professors, may gain in power and influence. And student leaders, drawn from more diverse backgrounds and affected by radical political currents, sometimes challenge many of the traditional values and assumptions of the university. In many institutions, the old consensus upon which elite universities were based has broken down, both within the faculty and among the students. Relations among colleagues and between teachers and students no longer can be built on a broad set of shared assumptions, but instead are increasingly uncertain and a source of continual strain and conflict. The move toward participatory forms of governance in universities often presupposes the survival of the old consensus, or the possibility of its re-creation. But more commonly, participatory forms of democracy may introduce into the institutions of mass higher education the conflicts of interest and ideology that are more familiar (and more effectively managed) in the political institutions of society.[

] This reference to student participation illustrates a general principle that emerges from this analysis: that the “same" phenomenon may have very different meaning and consequences in different phases of higher education. Thus "student participation" in the governance of a small elite institution marked by high value consensus, may in fact be merely the participation of the most junior members of a genuine academic community, held together by shared values regarding academic life. By contrast, "student participation" in a large mass institution marked by value dissensus may heighten the kind of interest and ideological conflicts that academic institutions, whatever their size or character, have great difficulty in containing or resolving. This is not always recognized; and the arguments for student participation drawn from experience in small elite liberal arts colleges are often applied indiscriminately to mass institutions. (This is true of other aspects of governance and forms of administration as well.)

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The growth of numbers, in itself, begins to change the conception that students have of their attendance in college or university. When enrollment rates are 4 or 5% of the relevant age group, students naturally see themselves as part of a highly privileged minority. Though this does not mean that they are necessarily passive or deferential, it does make them feel—along with their professors and lecturers—that they are part of a small privileged institution with a v clear set of common interests embodied in common values, symbols and ceremonies, modes of speech, and lifestyle. All that affirmed the communal identity of the academic institution against the rest of society.

The growth of higher education toward and beyond 15% of the relevant age group—and, in the larger European countries, toward student numbers of a million or more rather than fifty thousand—inevitably changed that. Students have come to see their entry into a university as a right earned by fulfilling certain requirements. And for an increasing proportion, attendance is in part obligatory: larger numbers in all countries attend a university at least partly because people in their parents' social strata send their children to university "as a matter of course." Such students feel less like members of a chosen elite upon arrival, and they enter universities that are larger (and in some cases very much larger) than their counterparts of 30 years ago. There is little question that the "communal" aspects of universities which have grown without being able or willing to create smaller units internally, have declined, along with the sense on the part of the students and teachers of their being members of a special "estate."

The growth of numbers and the shift in the conception of attendance from privilege to right is accompanied by changes in the principles and processes of selection. As the gates to higher education gradually open, the older, close links between a handful of elite preparatory schools, public schools, lycees, gymnasiums (whether private or state supported) and the elite universities become attenuated, and new avenues of access to higher education begin to open up. Logically, if the move toward mass higher education were the result of state policy and careful planning, the development of a broad system of "comprehensive" secondary schools—carrying larger and larger numbers from every social strata to the point of university entry—would precede the growth of mass higher education itself. In practice, however, the explosive expansion of higher education over the past two decades has almost everywhere preceded the move toward broad comprehensive secondary education aimed at preparing larger numbers for entry to higher education..

Caveats

The three phases of higher education transformation discussed in this chapter—elite, mass, and universal or open access education—are, in Max Weber's sense, ideal types. They are abstracted from empirical reality, and emphasize the functional relationships among the several components of an institutional system common to all advanced industrial societies rather than the unique characteristics of any one. Therefore, the description of any phase cannot be taken as a full or adequate description of any single national system.

These ideal types are designed to define and illuminate the problems of higher education common to a number of countries. These problems are of three broad kinds:

(a) The functional relationships among the various components or aspects of given systems; for example, the degree of compatibility or strain between a given pattern of student admissions and the dominant forms of university curriculum. In many European countries, university education is predicated on the assumption that a broad liberal education has been gained in the prpearatory secondary schools: the gymnasium, the lycee, the sixth form of British secondary schools. As the selectivity and rigor of education in those schools has declined with massification, students increasingly arrive in university without the underpinning of broad cultural knowledge formerly assumed.

(b) The problems arising during the transition from one phase to the next when existing (more or less functional) relationships are progressively disrupted by uneven and differently timed changes in the patterns and characteristics of the system. An example might be the survival of the professorial oligarchy as a mode of institutional, faculty, or departmental governance as the growth in the numbers and functions of junior staff increases their responsibilities, importance, and self-confidence.

(c) The problems arising in the relations between institutions of higher education and the larger society and its economic and political institutions, as higher education moves from one phase to another. An example here might be the greater emphasis on the public "accountability" of funds spent on higher education, and the growing encroachment on the autonomy of higher education institutions in the allocation and use of these funds, as costs rise and the higher education system becomes more consequential and more significant to a wider range of social, political, and economic activities.

It must be emphasized that the movement of a system from elite to mass higher education or from mass to universal higher education does not necessarily mean that the forms and patterns of the prior phase or phases disappear or are transformed. On the contrary, the evidence suggests that each phase survives in some institutions and in parts of others, while the system as a whole evolves to carry the larger numbers of students and the broader, more diverse functions of the next phase. Its newest—and gradually, its most important—institutions have the characteristics of the next phase. So, in a mass system, elite institutions may not only survive but flourish; while elite functions continue to be performed within mass institutions. Similarly, both elite and mass institutions survive as, beginning in the United States, nations move toward universal access to higher education.

But this observation points to a characteristic problem of all mixed-phase systems: the problem arising from the strains inherent in the continuing existence of forms of higher education based on fundamentally different principles and oriented to quite different kinds of functions. The question follows: how successfully, and through what institutions and mechanisms, does a system continue to perform elite functions, when the emphasis of the system has shifted to the forms and functions of mass higher education? How successfully can a system perform diverse functions that require quite different structures, values, and relationships—especially when central governing agencies are pressed, both by bureaucratic rules and egalitarian politics, to treat institutions and individuals equally and in standard ways?

The analysis of the phases of development of higher education should not be taken to imply that the elements and components of a system of higher education change at equal rates, and that a system moves evenly toward the characteristic forms of the next phase. In fact, development is very uneven: numerical expansion may produce a more diversified student body

before the curriculum has been similarly diversified; the curriculum may become more diversified before the recruitment and training of staff has changed to meet the new requirements of the changed curriculum; the staff may have become more diverse before the forms of institutional governance reflect the changes in the character of the teachers, and begin to distribute institutional authority to reflect academic responsibility more closely. A close analysis of developments in any given system must attend to (a) the sequence of change of its several parts and patterns; (b) the strains and problems arising therefrom; and (c) the extent to which the changes in different countries show common sequential patterns among the various parts and elements of their systems.

The model is not intended to be a simplified snapshot or overview of modern systems of higher education at different times and places. The stress is on the analysis of the strains created at the phase transitions. The model argues that these phase transitions create tensions and problems for the institutions undergoing change, for the systems of which they are part and,, in European countries especially, for the governments whose ministries and governments which make the fundamental policies regarding the size and shape of their systems of higher education. Much of the history of higher education in rich societies over the last half century has been driven by responses of the institutions and systems to the transitions from elite higher education to the much larger systems and their broader access that emerged in the second half of the twentieth century..

The analysis of the phases of higher education in advanced industrial societies, of the developments of parts of the system during these phases, and of the problems that arise at the transition points between phases and among elements changing at different rates within a phase, are designed to illuminate problems and patterns common to different societies and systems.

Quality, Equality and Expansion, and the Dilemmas they Generate

Higher education in the countries under review are linked to their national societies in three ways: by governmental policies, support and management; by the market for its products; and by a measure of societal trust in the integrity and competence of the institutions. These three forms of links vary in strength in different countries, at different times, and with respect to different kinds of institutions. The model discussed in this paper is a way of looking at the tensions generated among these forms of links over time, as the systems and institutions grew in modern democracies after WWII, and at the way governments and societies responded to those tensions.

In its predictions, the model assumed a certain range of weights among the three major links between higher education and their environing societies. One assumption was that growth, particularly in Europe, would create severe problems for societies in which, at the time of writing, the predominantly small elite institutions were wholly or almost wholly supported by governmental agencies. These tensions took many forms, but a central one was between the quality of higher education provided by the institutions, and the pressures for greater equality of provision under conditions of expansion. Those tensions took many forms (addressed in this essay), not least of which those tensions linking quality to funding and governmental support.

At the beginning of the rapid growth era, the steady expansion of higher education appeared to some observers, especially in the UK, to constitute a serious threat to academic standards. The question of "standards" is nominally a question of the quality of an academic program, how rigorous and demanding on the one hand, how rich and stimulating on the other. At one extreme we think of a group of learned and imaginative scholars and scientists teaching highly selected and motivated students in a situation of large intellectual resources—cultural,

scientific and academic. At the other extreme are institutions staffed by less well-educated and less accomplished teachers, teaching less able and less well motivated students under less favorable conditions marked by lower salaries, a poorer staff-student ratio, a smaller library, fewer laboratory places, and all in a less stimulating and lively intellectual environment. Many countries, responding to the democratic spirit emerging from WWII, were at the beginning of the expansion period committed, at least in principle, to a growth of their systems of higher education in ways which did not lower the quality and standards of the higher education already offered. This would involve the achievement of education at a high and common standard of quality throughout the system, whatever the varied functions of the different institutions might be. And this dual commitment—to continued growth and also to high quality in all parts of the system—posed a dilemma.

The dilemma had, and still has, three components. First, there is the strong egalitarian sentiment that all provision in higher education ought to be substantially of equal quality (and thus of cost). In the absence of good or reliable measures of the effects of higher education on the adult careers of graduates, people tended then to assess the "quality" of education by reference to its internal processes, and this leads to equating quality with cost. Governmental efforts at the evaluation of programs and departments of higher education in recent decades have tried to break this identification of quality with cost, but broadly unsuccessfully.[5] The second is that the criteria against which new forms of mass higher education are assessed are typically those of the older, costlier forms of elite higher education. And third, a rapid and potentially almost unlimited growth of higher education, at the per capita cost levels of the former small elite systems, placed intolerable burdens on national and state budgets that were also having to cope with growing demands from other public agencies, such as social welfare, preschool

education and child care, primary and secondary school systems, housing, transportation, and defense.

When applied to higher education, the egalitarian position—which cuts across class lines and party preferences—was and is highly critical of any tendency to institutionalize differences between one sector and another of higher education. Egalitarians in many countries were committed to closing the gulf between the several parts of their higher education systems, and to reducing the differentials in the status, quality, costs and amenities of its different segments and institutions. People with those sentiments, who might be called "unitarians" in their commitment to a single system of institutions, governed by common standards of education throughout, were often also committed to reforming universities and making them serve more of the functions of the nonelite forms of higher education, while at the same time raising the quality of the nonelite forms of higher education (especially of higher technical education) to that of the university standard. This position—liberal, humane, and generous—argued that the formal differentiations between the several forms and sectors of higher education almost always led to invidious distinctions between them, and ultimately to very marked differences in the quality of their staff and students, and in other respects as well. People holding these views also observed that the weaker or low-status segments of the system are those characteristically associated with (and used by) students from working and lower middle-class origins, so that the status differentiation in higher education is closely linked to that of the class structure as a whole. They argued that any sectors of education outside the system that included the universities must necessarily be made up of second-class institutions for second-class (and most commonly working class) citizens, as historically they have been. Essentially, their slogan is "nothing if not the best"—

especially for youngsters from those strata of the society that have often gotten less or, if anything, second best.

But while this position is humane and generous in its concern for the equality of educational opportunities for working-class people, it is—in its insistence on a "leveling upward," in cost as well as quality—inevitably in conflict with a continued and rapid expansion of access to higher education. No society, no matter how rich, can afford a system of higher education for 20% or 30% or 40% of the relevant age group at the cost levels of the elite higher education that it formerly provided for 5% of the population. Insofar as egalitarians insist that there be no major differentials in per capita costs among various sectors of the system of higher education, and yet also insist on expansion, then they force a leveling downward in costs, and perhaps in quality as well. The best example of this position has been the funding of higher education in the United Kingdom, where expansion coupled with strong egalitarian sentiments have led to a decline in the per capita student support by government for institutions (what was called the "unit of resource") of something between two thirds and three-quarters between 1979 and 2004. Insofar as they are committed to a high and common support for universities throughout the system, governments were forced to face the necessity of imposing a restraint on expansion, or else lowering support levels for the institutions. The crucial question in this "unitarian" position is whether it is a commitment only to a common set of standards throughout the system, or to a common *high* set of standards as well.

This "unitarian" or "egalitarian" position is basically incompatible with the very marked differences between institutions in their staff-student ratios, research activity, need for support staff, libraries and laboratories, and other aspects of cost and quality. While it is possible in principle to argue that some institutions would be more expensive because they carry a larger

research responsibility, it is very difficult in practice to argue for a genuine unitarian system while forbidding certain parts of that system or institutions within it to engage in research. And research is inherently highly expensive. Moreover, there is a tendency everywhere to identify research with the highest standards of higher education, an identification that has a strong component of reality in it. It is research that attracts the most able and creative academic minds, and it is the institutions that recruit those people that gain higher status in any system of higher education. Therefore, a genuinely egalitarian policy must allow every institution to attract people who are innovative intellectually, and that means supporting their research and giving them the high degree of autonomy they need to create new knowledge, new fields of study, and new combinations of disciplines. These activities are very hard to rationalize and program closely, despite the new forms of academic management being introduced everywhere. For this and other reasons, a unitarian position that wants to raise standards in all institutions to that of the leading universities tends to constrain the growth of the system; if every new place, every new institution is potentially as expensive as the most costly of the old, then growth must be very carefully planned and sharply restricted, or alternatively, that state support per student (ie., the "unit of resource") be allowed to decline sharply. However, where the egalitarian spirit overrides that of a commitment to high standards across institutions and sectors, as in much of the United States, the slogan is not "nothing if not the best" but rather the expansionist slogan "something is better than nothing." Under those circumstances there tends to be a leveling downward coupled with expansion, rather than a leveling upward with its inherent tendencies toward a constraint on growth. The major exception to this rule is where there are alternative sources of support for institutions other than the state. And that is, so far, almost exclusively in the United States, and for a relatively small number of elite colleges and universities, both public and private.

The key question in this dilemma is whether new forms of higher education can fulfill their functions at a standard that earns high status and satisfies egalitarians, while reducing per capita costs in ways that will allow genuine expansion toward mass higher education. The Open University in Great Britain is certainly one effort in that direction. But the Open University in England, despite its name, is not a typical institution of universal access. On the contrary, it is a characteristically ingenious way of increasing access to an elite institution by substituting motivation for formal qualifications, and by allowing people to combine university work with full-time employment. Some of the characteristics of an elite university have been discarded, but the University maintains the high standards of elite British universities and its very clear boundaries. The Open University is an interesting transitional institution between the elite and mass phases of British higher education.

Alternatively, a society may reject the arguments of the unitarians and egalitarians and develop a system that sustains internal diversity in costs and quality as well as in forms and functions, as per the American model. (As suggested later in this chapter, such an approach is much more difficult in systems that are financed, and thus ultimately governed, from a central government agency.) But in either case, the more ambitious and energetic the new institutions are, the more they will demand the libraries and research facilities, the salary schedules and other amenities of the old institutions, and the more likely they are to drive their per capita costs up. It may be worth exploring how the forms of this dilemma differ in different societies.

The effect of expansion on "standards" and "quality" is a complex and uncertain issue. In the early stages of the current phase of growth, beginning in the 1950s, there was widespread concern among academics and others, captured in the slogan "more means worse," that the pool

of talented youth able to profit from higher education was small and limited, and that expansion beyond the numbers provided by this pool would necessarily mean a decline in student quality. However, in the early years of expansion the abilities of those segments of the student population that had not previously entered universities put those fears to rest. Nevertheless, some observers suggested that the new students were, if not less able, then less highly motivated, or less well prepared by their secondary schools, for serious academic work. This feeling was widespread, even if there was no good evidence to support the hypothesis, and some reason to suspect that real students in the (then) present were being compared with idealized students in some mythical Golden Age located variously in the past, depending on the age of the speaker.

Concerns about the academic quality or promise of the "new" students coming to universities were also damped down by the emergence of alternative non-university forms of higher education—the polytechnics and colleges of further education—which admitted students on lower (or at least different) criteria than did the traditional universities.

There was a somewhat more persistent and plausible concern held by many that the rapid expansion of higher education lowered the average quality or the adequacy of the preparation of college and university teachers. Still others feared that growth was affecting the relations between teachers and students adversely, making them more remote and impersonal (where they were not so already). And others suggested that mass higher education must affect the intellectual climate of colleges and universities, introducing into them the vulgarities of the marketplace, of vocational training, of mass politics and popular culture.

Whatever the validity of those fears—and they were not wholly without substance—no society could make the political and financial decision to radically restrain expansion in order to maintain an equality of cost and provision at high standards across the board. That would have

precluded the emergence of mass higher education, and that was unstoppable for a variety of social, political and economic reasons. The solution everywhere was a combination of the creation of cheaper alternatives to the elite universities, plus a reduction in per capita support for higher education institutions of all kinds by central governments. But in all European countries the problems were made more acute by the commitments of governments (in varying degree) to resist the creation of private forms of higher education,[6] to resist also the imposition of levels of student tuition at anywhere near the economic costs of tuition, and their parallel failure to introduce adequate programs of student loans and grants for poorer students. And only a handful of European institutions have found ways to gain substantial support through services to (and joint projects with) the private sector, or have gained the support of their graduates in any way comparable to American colleges and universities.

American Higher Education as a Model

Despite all the difficulties, and with some reservations chiefly arising from a reluctance to surrender ultimate governmental control and finance, European systems of higher education move toward American models. The Bologna agreements make this manifest: the commitment to a fixed term first degree, the transferability of credits, and common criteria for access are only the most visible of the tendencies toward convergence on American models. European systems move in that direction not because the United States is rich and a superpower, or because of the power of American popular culture—elements in the Americanization of so many other institutions in other countries. It is because American higher education as a system is simply better adapted, normatively and structurally, to the requirements of a "post-industrial" age, which puts a great premium on the creation and wide distribution of knowledge and skill, and is marked

by such rapid social and technological change that decision-makers in all countries begin to see (or at least believe in) the necessity for broader access to postsecondary education.

But even while European universities are still trying to adapt their organizational, governance and funding arrangements to their relatively new mass numbers, the United States, by contrast, had the structures for mass higher education in place long before they actually had mass higher education, which came with the GI Bill just after World War II. And the structures for universal access, in the form of open access community colleges, were already in place in the first decades of the twentieth century, even before the enrollment numbers signifying mass education had arrived.

The First System of Mass Higher Education

Why is it, then, that the United States developed a system of mass higher education so much earlier than anyone else? What have been the impediments to the transformation of elite European systems into systems of mass higher education now? And how are the United States and other countries moving towards universal access, lifelong learning, "the learning society"? These phrases all point in the same direction, towards the breakdown of the boundaries between formal learning in the institutions of postsecondary education and the rest of life, the assimilation of postsecondary education into the ordinary life of the society.

The modern system of higher education in the United States was already in place over a century ago; in contrast, the emergence of modern European systems of higher education is still under way. By 1900, when only 4% of Americans of college age were attending college, almost all of the central structural characteristics of American higher education were already evident: the research university alongside liberals arts colleges and various forms of vocational

institutions, each of them governed by a lay board of trustees, led by a strong president and his administrative staff, with a well-defined structure of faculty ranks; and in the selective institutions, promotion through academic reputation linked to publication and a readiness to move from institution to institution in pursuit of a career. In terms of the curriculum, the elective system, the modular course, and credit accumulation and transfer based on the transcript of grades were all in place by 1900, as were the academic departments covering the known spheres of knowledge, as well as some not so well known.[7]

Indeed, if WWII was the watershed in the history of modern European higher education in its move toward mass provision, then the American Civil War was the watershed for American higher education. For it was during that War that the Congress passed the Morrill Act, which provided federal funds for the creation of universities, or of additions to existing universities. The creation of what were called "land-grant colleges"[8] (referring to the sources of the money allocated to the new institutions) greatly increased institutional diversity in American higher education, combining (in the same institutions) technical and higher vocational subjects with the liberal arts. The land-grant colleges also brought with them the spirit of public service, the obligation of the university to serve the larger society and not just government, the church and the learned professions. That commitment to service served American universities well when, over time, the costs of higher education exceeded the state or federal government's capacity to support them; it gave legitimacy to the universities to turn for help and support to the groups and institutions in the larger society whom they have been serving. Today, European higher education suffers from the inability of central governments to adequately fund their growing needs. It is rarely noticed in national comparisons of funding that in the U.S. the

substantial support from governmental sources is matched by private giving to colleges and universities, public and private.

In addition to the political and organizational innovations that gave the U.S. an advantage in responding to the growth of enrollments that followed WWII, underpinning all was the spirit of competition, institutional diversity, responsiveness to markets (and especially to the market for students), and institutional autonomy marked by strong leadership and a diversity of sources of support. The United States had the organizational and structural framework for a system of mass higher education long before it had mass enrollments. And it had the framework for universal access long before those numbers appeared in the system. Only growth was needed. That happened in plenty, and with surprisingly little strain on a system already adapted to growth and change. Indeed, the only major structural change in American higher education over the past century was the invention and spread of the community colleges, linked easily and casually to four-year institutions through credit transfer, and in some places, through strong encouragement to strengthen those ties by state and local governments. The current expansion of distance learning, much of it provided by for-profit institutions, is another major addition to the American diversity of provision, and of special significance for universal access.

Of course American higher education differs in many ways from what it was in 1865 or 1900, but growth and development have not required changes in the basic structure of the system. It is those structural changes that are now taking place, with great difficulty, in Europe and the United Kingdom.

Current (2005) Problems for European Higher Education

All European systems are currently struggling with adaptations of their own, often very old, organizational and curricular arrangements to the requirements of mass higher education. And the central response of the European Union to these demands has been the agreements embodied in the "Bologna Process, "as they were enunciated in that city in June 1999. Bologna is very much a part of broader EU policy, and aims at constructing a European Higher Education Area. Central to the "reforms" embodied in those agreements are a movement toward the English/American degree pattern of three years to an undergraduate degree, whatever its title (in the UK and U.S. it is the bachelors' degree) and two further years to a Masters degree, the now familiar 3/2 plan. Other reforms are also part of the agreement, but basically what is aimed at is a degree of rationalization—or as the "Process" puts it, a "harmonization"—of the disparate curricular and academic time arrangements of different countries, in part to allow a greater degree of movement of students among them, and in part to reduce the prolonged periods of study (or at least of formal enrollment) that students undergo in some countries before a degree is earned.[9] What the policy did not have was much input, if any, from the European academic community, whose members were presumably going to implement the new arrangements. Bologna until now has been very much a "top-down" politically driven process, and in noted scholar Guy Neave's view, likely to lead to resistance at the institutional level in many countries.

Neave (2004) points to the distance between the planners of Bologna and the academics who are being asked to "embed—that is, actually implement—it in their own institutions: "Policy implementation is a reiterative process. It is re-negotiated, and very often sadly mangled as The Word from On High works its way down through successive levels in the great chain of decision-making. Institutions and beneath them Faculties, Schools and Departments, reinterpret the Divine Message, according to their particular theology and sectarianism. Each interprets the

directive—or the policy—to its own advantage, emphasizing its strengths and shoveling whatever weaknesses it is prepared to admit to itself, beneath the rug."

"Viewed by those who sit in authority—whether in Rectorate or Ministry—what emerges as `policy response' bears only a distant relationship to what Authority had originally in mind. It is greatly frustrating. Naturally, such frustration has its very own scholarly terminology—'resistance to change', 'Ivory Tower-ism' or even, as I have seen from time to time, 'Humboldtian' attitudes. What is perceived as obduracy by reformers reflects that basic feature students of higher education have long noted and dissected—namely, that higher education may, depending on national administrative culture, be top driven. It is also 'bottom heavy'. Thus, the assumption of linearity that underpins the Bologna Process, viewed from within the *Pays politique* is questionable indeed when viewed from what we know about institutional behavior seen from the standpoint of [the academic world]. It is precisely the 'bottom heavy' nature of higher education that Bologna has chosen to leave aside. Or, to discount it, at least. It is, I think, a very grievous error."[10]

Whatever the state or fate of the Bologna Process, the actual condition of European university systems (with some exceptions) does not seem to hold great promise for early or successful reform. Perhaps the most intense interest has focused on developments in British higher education, in part because it is England (not the U.S.) which provides the template for the academic time-table at the heart of the Bologna Process—the 3/2 model toward which other countries are to be "harmonized."[11]

The multiple problems of higher education in the UK have been more visible than those on the European Continent for the past two decades because the British have traditionally linked the quality of the education provided in their universities to the "unit of resource,"—the state

support for the universities as measured on a student per capita basis. This also defines the student-staff ratio, whose steady deterioration has been a matter of concern to the English, if less so for Continental universities. The unit of resource links growth to funding to quality in a visible way, and while it did not prevent a very deep decline in British support for their colleges and universities over the past several decades, the evidence of underfunding has finally persuaded the British government to permit the universities to charge a tuition of up to 3,000 pounds per student.[12] And the ability of universities to charge that sum depends on whether their students are prepared to pay it. Thus, it is bound to be imposed differentially between selecting and recruiting universities. Still, even where it can be put in place, that figure is still quite inadequate, and most observers assume it will have to go higher. By contrast, Continental nations during their period of rapid growth simply added institutions and allowed enrollments to grow without demonstrating great concern for declining staff-student ratios.

To take Germany as an example, the vice president for academic affairs at International University Bremen illustrates Neave's point from the perspective of an administrator of an institution who would have to "embed"—ie., implement—the Bologna reforms: "The main but unstated purpose of the German bachelor's degree is to reduce the overcrowding in the universities and thereby to save money in the federal higher education budget. A second purpose is to conform to the new Europeanwide standardized-degree structure budget that will allow greater mobility among students internationally. Yet there is no coherent pedagogical or intellectual basis for the initiative. Not once in the debate in Europe about the introduction of the bachelors's degree have I heard an argument about how it improves what or how students learn, how it strengthens the students' ability to cope in the rapidly expanding marketplace of ideas and information, or how it provides a more solid basis for the student's further education, either in

the professions or in research. It's all about saving money and getting students out of the classroom and, it is hoped, into the workforce."[13]

But behind and beyond the problems posed by the Bologna Process lies the chronic underfunding of almost all the European systems, rooted partly in their deep reluctance or refusal to charge realistic fees to students. "The reluctance of the German people to pay fees to their universities—which, with very few exceptions are all public institutions and therefore supported almost exclusively by tax revenues—reflect deeply held beliefs about the state's responsibility to educate the citizenry. Germans pay tax rates that by American standards are exorbitantly high, and in return, they expect things in the public domain—including university education—to be free, or at least very inexpensive."[14] And this is not merely a strongly held belief, but is written into the nation's Federal Constitution.

Add to the European commitment to "free" university education the near absence of endowments for institutions. "[T]he tax laws are such that it is highly unlikely that a tradition of giving endowed funds will ever take root."[15] Underfunding is likely to remain a chronic problem for most European nations, not least the newest (and poorest) members of the EU that have just joined the club.

The defenses by higher education systems and institutions against most reforms are multiple and overlapping. For example, Germany has been notorious for the difficulties it creates for gaining a chair in a university. According to one observer, "The process of becoming a professor in Germany has traditionally involved completing what amounts to a second dissertation after obtaining the doctorate. The so-called Habilitation, which all applicants for professorships must finish requires postdoctoral candidates to pursue research for several years under the supervision of an established

professor and to write another thesis. As a result, most German academics are in their early 40s by the time they become full professors [if they ever do so]. [A new law] would have phased out the Habilitation by 2010 and made junior professorships—available to candidates who had completed their Ph.D.'s within the previous six years—the sole path to full professor ships . . . [But] an eight-judge panel of the Federal Constitutional Court ruled 5 to 3 against the government last month, invalidating a 2002 statute that create new junior-professors positions at German universities."[16]

The conservatism of the German system, marked by the diversity of arrangements among the Länder, the requirement that they all agree on many issues, conservative and powerful educational bureaucracies and courts, and equally powerful *ordinarius* (chaired) professors who substantially govern their universities, is perhaps extreme. But while other European countries have somewhat greater flexibility, none of them has created the funding base plus the level of institutional autonomy plus the strong institutional leadership with extended tenure that is required to create and sustain universities of great quality under conditions of mass higher education.[17]

The issue of institutional diversity, and of the emergence of a group of elite universities that can challenge the leading American research universities, was involved in the closely contested political decision in the UK to allow the differential imposition of student tuition fees.[18] Such a policy comes up squarely against strong national and ideological commitments to equality among the institutions of higher education in a nation state.

As if the universities didn't have enough problems getting a measure of common reforms of the degree structures within the EU, they have also run into problems in getting agreement from American universities for the new arrangements. "Europe's grand plan to harmonize the

Continent's disparate systems of higher education is coming up against an unexpected obstacle: Many American graduate schools say they won't accept Europe's new three-year undergraduate degree."[19] While American universities make an exception in favor of the English three-year degree, on the grounds that they know the quality of that degree and have had long experience with its holders, American elite research universities are not prepared to be as tolerant of the new three-year degree on the European Continent. But a major motivation of the reform of the degree structure was to encourage and make possible mobility among universities, both within the EU and with American universities.

Of course, the actual progress toward the reforms of national systems differs widely among the members of the European Union. And despite the deep conservatism of European academics and university systems, there is a growing recognition of the necessity to introduce a pattern for change of the systems and their constituent institutions that would increase the probabilities of a successful transition from elite to mass higher education, while preserving (or creating) a group of world-class universities.

Necessary reforms include the further diversification of the types of institutions of higher education in both form and function, mirroring the growing diversity in the origins and destinations of students as the systems have grown. Some of the emerging mass systems have provided, under different names and arrangements in different societies: a). a sector of research universities, awarding degrees up through the doctorate; b). a sector of colleges, devoted primarily to teaching and the awarding of first professional degrees; c). a system of open door institutions, giving access to working and mature students, awarding certificates and, for a very small minority, enabling transfer to a college or university, and d). an Open University, allowing studies at various levels of proficiency to study at a distance for a variety of awards.

Additional reforms associated with the transition to mass higher education require granting the institutions greater freedom from governmental regulation. This involves enabling or permitting the institutions to supplement support from the public purse by raising funds through tuition and through services provided to the private sector, as well as through the more traditional sources of support for research and private gifts.

Among other necessary reforms are the strengthening of the role of the institutional president, under whatever name; the creation of strong, regular and recurrent procedures for quality control within the institution; and the creation of procedures for the external monitoring of the adequacy of the internal quality control procedures in each institution and department, through regular and periodic audit of those procedures.

Every society with a growing system of higher education shows some of these changes; few show them all. The absence of some or most of them have created severe problems for countries whose systems are making the transition to mass higher education, or moving toward universal access.[20]

This chapter does not discuss two large and important systems of higher education, one growing rapidly, the other contracting. Japanese society is experiencing a very large demographic decline, felt strongly among this generation of college age youth. During its period of growth after WWII, Japanese educators showed great interest in the ideas sketched in this chapter, an interest reflected in the Japanese translation of two collections of previously authored works on higher education transformation. (Trow, 1976, 2000), Currently, more salient issues have to do with the relations between the universities and the Ministry of Education than with the management of growth. The impact of the demographic decline in Japan is felt by the very large

number of private institutions, and especially by the less prestigious ones, some of which have already closed their doors.

Matters could not be more different in China, whose higher education system is growing rapidly from a very small base, trying to keep up with the rapid growth of the economy, and with the full support of a government that can focus resources where it wishes without much concern for public sentiment or the views of the academic community. Chinese academics have also shown a keen interest in the ideas sketched in this essay, as reflected in the translation into Chinese of some of the papers cited in this paper on the growth and transformation of higher education systems in their move toward mass higher education. (Trow, 2001).

A Look Ahead

The fact that the Western university has survived in recognizable form for 800 years, and the modern research university for a hundred and fifty, is no guarantee that it will survive in much the same form for the next twenty-five. Some trends in higher education can be predicted with some measure of confidence, rooted in deep-seated forces in Western society that are not likely to be reversed in any foreseeable future. Chief among these are what Max Weber saw over 80 years ago as the master secular trends of our time—democratization and rationalization, processes which in higher education take the special forms of massification and universal access. What does that mean, and how might those trends play out over the next quarter century? Some

guesses, based on the foregoing analysis of trends in the higher education systems of modern societies, are as follows:

- In higher education in 2030, there will be more of everything: more institutions, more kinds of institutions, more students and teachers, and more diversity among both institutions and participants.

- The development of the economy in advanced societies will continue to increase the demand for a labor force with more than a secondary school education, and reduce the size and numbers of the occupations that do not. But the demand for higher education will increase what is "required" by the occupational structure. Higher education's chief characteristic is that it gives its recipients a capacity to adapt to change; it will continue to be one of the few advantages parents can give to their children in a rapidly changing world, and more and more people will become aware of that.

- The technical upgrading of jobs, and the link between the success of a business and the training and skill of its labor force will accelerate the interest of industry in supporting and continuing the education of their employees. A good deal of advanced education already takes place in the private sector; this will grow rapidly, as will the creation and development of "learning centers" inside and outside of industry, serving a growing demand for the continuing education of the labor force.

- Private business and industry, as well as individuals, will increasingly pay for what they want and need by way of further and adult education. Government at every level will be contributing a smaller proportion of the total costs of higher education; there are too many other demands on public money to support the continually growing demands of 'education' of all kinds. As a result, colleges and universities will become even more successful at selling their services, and the knowledge their research generates, to individuals and business interests. But governments will continue to be significant, even where inadequate, to the support of certain kinds of higher education, particularly that which continues to be provided in universities insulated from market forces.

We are moving toward a situation which might be described as a "learning society," with very large parts of the population more or less continually engaged in formal education of one kind or another. Under those circumstances, education becomes more highly distributed, taking many different forms in different locations, offering a variety of certificates and degrees. The growing distribution of continuing and distance education will increasingly blur the distinction between education and the rest of society. Distinctions that we make today among "higher," or

"continuing" or "adult" or "remedial" or "further" education will be increasingly difficult to make as these activities are carried on, without being so identified or distinguished, as part of the ordinary activities of economic, political, military, and leisure institutions. Moreover, the "success" of such education will be attested not through examinations and certificates, but through an individual's performance on a job, or of a unit performing a function or service. And that will make increasingly irrelevant government-sponsored external assessments and evaluations, which will come increasingly to be confined to subjects not responsive to market forces.

More generally, the broad movement from elite to open access systems of higher education is associated with, and in part defined by, the increasing permeability of boundaries of all kinds—between institutions and the surrounding societies, between departments and disciplines as both teaching and research become more interdisciplinary, between universities and private business and industry, and between formal education and the informal learning that goes on in a learning society which depends on the constant accretion of new knowledge.

The uncertainty factor in this scenario is technology, especially the technology of communications. Education in recent decades has seen many announcements of abortive "technological revolutions" to be properly skeptical of new announcements of yet another. Yet it seems likely that in the near future much of what is done today among people working in physical proximity may be possible to approximate through electronic links among people who are physically separated. And that will be an educational revolution.

But teachers and students will continue to come together in places called colleges and universities, for longer or shorter periods, to study and learn together even when the same learning might be carried on at a distance. The wish of people to be in each other's presence, and

the spontaneity of interaction and relationship that allows, cannot be duplicated through technology, or at least any that we are likely to see in place in the next quarter century.

Some kinds of education, perhaps the most important kinds, involve the shaping of mind and character, not only the way we think but also the way we feel and see the world. That kind of education, we have learned, requires that people care about one another beyond their usefulness to one another as carriers or recipients of bodies of information and skill. It is uncertain whether that kind of relationship can develop properly through electronic links.

Moreover, some of the most important kinds of knowledge are "tacit," not fully articulated or rationalized, gained through apprenticeship and direct association with those who possess it. If that is true, then institutions much like the colleges and universities we are familiar with, will survive at the center of educative webs, surrounded by all the other kinds of advanced learning and education that will characterize the learning society of the future.

The institutions, structural conditions and attitudes that define a learning society are already in place in the United States, just as the institutions of mass higher education were already in place in America a century ago, waiting for the mass expansion of enrollments into them. But a learning society developing spontaneously, in response to the demands of their societies and economies, will be hard for European governments and institutions to accept. In all of them, higher education has been a provision of government, largely central government, and it is (and will continue to be) hard for them to give more of the power over these systems to the market.

The broad effect of direct governmental authority over higher education is a tendency toward the further democratization of their systems, and that means in effect efforts to level the institutions in their claims on resources. That, together with strong resistance in European

nations to introducing tuition charges or private institutions, leads to the chronic underfunding of European elite institutions and programs. We already see that higher education is being asked to provide advanced and continuing education for everyone without the intellectual resources of elite higher education to draw on. Elite universities and their functions are vulnerable, both politically and financially; under enough pressure, their research activities can move to industry and research laboratories, their humanistic scholarship to think-tanks, museums and foundations. One scenario is that the great European research universities will survive, but with poorer staff-student ratios, more external accountability and management, becoming more and more the servants of other institutions, public and private, and less able to define their own roles and missions. They would thus come increasingly to look like other institutions of mass higher education, different only in their historical and cultural pretensions. Alternative scenarios require European universities to raise more money and exercise more autonomy.

Democratization has as one of its major characteristics cultural and institutional leveling, powered by the passions and forces behind the concept of equality. This is much more the case in the public than in the private realms, thus more visible in Europe than in the U.S., and within the U.S., more in the public than in the private universities. If this process of leveling proceeds apace in the realm of higher education, it will tend to reduce the difference between elite and mass higher education, at the same time that mass higher education tends to become more diverse and increasingly open to universal access. Studies of the high culture—humanistic scholarship, the liberal arts—are to some degree insulated from the market, and will be most resistant to these developments. But apart from some exceptional subjects and places, higher education may over time come to reflect the simultaneous standardization and marginal differentiation of commodities in the global market. All this might happen just slowly enough, masked by the

traditional forms, titles and ceremonies of university life on the one hand, and the revolution in communications on the other, so that our children and grandchildren may not even notice.

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Martin Trow has been awarded half a dozen honorary degrees by European universities and Carleton College, is a Foreign Member of the Royal Swedish Academy of Science, a Fellow of the American Academy of Arts and Sciences, the American Academy of Education, the AAAS, and the Society for Research in Higher Education in Great Britain. He was a Trustee of Carleton College in Minnesota, 1980-2001. He has served as Chairman of the Academic Council of the University of California, and Faculty Representative on its Board of Regents, and holds the Berkeley Citation, the University's highest award.

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Table 1: Trow's Conceptions of Elite, Mass and Universal Higher Education

	Elite (0-15%)	**Mass (16-50%)**	**Universal (over 50%)**
i) Attitudes to access	A **privilege** of birth or talent or both	A **right** for those with certain qualifications	An **obligation** for the middle and upper classes
ii) Functions of higher education	Shaping mind and character of ruling class; preparation for elite roles	Transmission of skills; preparation for broader range of technical and economic elite roles	Adaptation of 'whole population' to rapid social and technological change
iii) Curriculum and forms of instruction	Highly structured in terms of academic or professional conceptions of knowledge	Modular, flexible and semi-structured sequence of courses	Boundaries and sequences break down; distinctions between learning and life break down
iv) The student 'career'	"sponsored" after secondary school; works uninterruptedly until gains degree	Increasing numbers delay entry; more drop out	Much postponement of entry, softening of boundaries between formal education and other aspects of life; term-time working
v) Institutional characteristics	- Homogenous with high and common standards - Small residential communities - Clear and impermeable boundaries	- Comprehensive with more diverse standards; - "Cities of intellect" – mixed residential/commuting - Boundaries fuzzy and permeable	- Great diversity with no common standards - Aggregates of people enrolled some of whom are rarely or never on campus - Boundaries weak or non-existent
vi) Locus of power and decision making	'The Athenaeum' – small elite group, shared values and assumptions	Ordinary political processes of interest groups and party programs	'Mass publics' question special privileges and immunities of academe
vii) Academic standards	Broadly shared and relatively high (in meritocratic phase)	Variable; system/institution 'become holding companies for quite different kinds of academic enterprises'	Criterion shifts from 'standards' to 'value added'
viii) Access and selection	Meritocratic achievement based on school performance	Meritocratic plus 'compensatory programs' to achieve equality of opportunity	'open', emphasis on 'equality of group achievement' (class, ethnic)
ix) Forms of academic administration	Part-time academics who are 'amateurs at administration'; elected/appointed for limited periods	Former academics now full-time administrators plus large and growing bureaucracy	More specialist full-time professionals. Managerial techniques imported from outside academe
x) Internal governance	Senior professors	Professors and junior staff with increasing influence from students	Breakdown of consensus making institutional governance insoluble; decision-making flows into hands of political authority

*From John Brennan, "The Social Role of the Contemporary University: Contradictions, Boundaries and Change," in *Ten Years On: Changing Education in a Changing World,* Center for Higher Education Research and Information . Milton Keynes: The Open University, 2004, p. 24. The first full statement of these ideas was published in Trow, M. (1974). "Problems in the Transition from Elite to Mass Higher Education, in *Policies for Higher Education,* from the General Report on the Conference on Future Structures of Post-Secondary Education, 55-101. Paris: OECD, and were developed in later papers, cited in the notes.

Notes

[1] "Problems in the Transition from Elite to Mass Higher Education," in *Policies for Higher Education,* from the General Report on the Conference on Future Structures of Post-Secondary Education, 55-101. Paris: OECD, 1974. Reprinted by the Carnegie Commission on Higher Education in Berkeley, California, 1973. The paper also draws on other of my papers published subsequently. Among these are: "Elite Higher Education: An Endangered Species?" *Minerva* (London) 14, No. 3 (Autumn 1976): 355-76; "Elite and Mass Higher Education: American Models and European Realities." In *Research into Higher Education: Processes and Structures*. Stockholm: National Board of Universities and Colleges, 1979, and "Comparative Perspectives on Access" in Oliver Fulton, ed., *Access to Higher Education*, Guildford, England: Society for Research into Higher Education, 1981. 89-121.

[2] John Brennan, The Social Role of the Contemporary University: Contradictions, Boundaries and Change," *Ten Years On: Changing Education in a Changing World,* Center for Higher Education Research and Information , Milton Keynes, The Open University, p. 24.

[3] Gareth Parry, "British higher education in the prism of devolution," in Ted Tapper amd David Palfreyman, eds., *Understanding Mass Higher Education: Comparative Perspectives on Access*, London, RoutledgeFalmer, forthcoming 2005. The age participation rate had climbed to 33% (though it varied from 45% in Scotland to 28% in Wales), having doubled in a decade. But the age participation rate loses analytical value everywhere as the numbers of mature and foreign students grow.

[4] See Table 1, provided earlier in this chapter

[5] External "evaluation" in all countries has mostly found academic excellence to be present in the old elite universities which did research. The requirements of research—big libraries and laboratories, and low academic teaching loads—are what drives the cost of universities up, as compared with non-research institutions of higher education. "Evaluation" doesn't change that.

[6] The church-related universities in various European countries have a measure of autonomy, but are dependent on state support to almost the same degree as the secular institutions.

[7] On the emergence of the American system from its Colonial roots, see Trow, "In Praise of Weakness: Chartering, the University of the United States, and Dartmouth College," in *Higher Education Policy*, 2003, 16, 9-26; and "From Mass Higher Education to Universal Access:The American Advantage," *Minerva* 37, Spring 2000, pp. 1-26.

[8] The terms "university" and "college" have been more loosely and promiscuously applied in the U.S. than is customary in Europe. Most of the land-grant colleges were or shortly became research universities, some were and remained four year colleges. The language of the Morrill Act referred to "colleges."

[9] For an informed, critical and skeptical view of the Bologna Process, see Guy Neave, Presidential Address to the 26th Annual Meeting of the European Association for Institutional Research, Barcelona, September 5th, 2004. See also the chapter by Hans de Wit in Vol. II of this *International Handbook*.

[10] Ibid.

[11] Recent moves toward devolution in the UK permits the Scottish university system to deviate from the English model. Scottish universities start with a four year degree to the Bachelors, and will resist a move to a three year degree. It currently can refuse to follow the English move toward tuition payments, making up the difference in revenue from its own power to raise taxes. See Parry, *op. cit.*

[12] See M. Trow, "The decline of diversity, autonomy and trust in post-war Britain, Perspectives, Vol. 8, Number 4, October 2004, pp. 7-11. Summary of a paper prepared for a conference on the White Paper of 2003, sponsored by The Center for Studies of Higher Education, UC Berkeley, and New College, Oxford,, September. 28-30, 2004.

[13] Thomas John Hochstettler, "Aspiring to Steeples of Excellence at German Universities," *The Chronicle Review*, July 30, 2004.

[14] Ibid.

[15] Ibid.

[16] Aisha Labi, "German Court Overturns Law Designed to Streamline Path to Professorship," *The Chronicle of Higher Education International*, August 13, 2004.

[17] Europe's difficulties in competing with American universities arise in part from the weight of European egalitarianism "which strives to provide a solid education to as many students as possible while refraining from rewarding exceptional talent." Martin Enserink, "Reinventing Europe's Universities," *Science*, vol. 304, 5673, 14 May 2004, 951-953. On the poor international standing of French universities, see Gilbert Bereziat, "Université Pierre et Marie Curie: France's number one university in the Top 500 higher education institutions in the world." Bérézíat ,President of the *Universitaire Pierre* and Marie Curie University notes that his university is "the leading higher education institution in France," though it ranks only 65th among world universities..

[18] For a brief overview of Europe's difficulties in competing with American universities, which emphasizes the weight of European egalitarianism "which strives to provide a solid education to as many students as possible while refraining from rewarding exceptional talent," see Martin Enserink*, op. cit.* On the current unhappiness in French universities, see Michael Balter, "Reform Plan Seen as Halting Step," *Science,* vol. 292, 4 May 2004,

[19] Burton Bollag, "Many American graduate schools are cool to Europe's new 3-year diplomas," *The Chronicle of Higher Education International*, Oct. 15, 2004.