



Reform and Innovation in Higher Education¹

University reform and innovation are processes related to planned change in higher education. The term *reform* usually applies to change of a basic structural nature. Smaller alterations in the curriculum or in the means of instruction are more properly called *innovations*. Of course, many of the developments in higher education since the Second World War have not arisen from purposeful reform and planned change. They have resulted simply from expansion, or from the addition of functions, institutes or curricula without following any previously thought out plan.

'Reform and innovation' is a double-edged concept. What is reform to an educational planner may be a regressive step to a student or a professor; and what is a dramatic innovation in one country may be established practice in another. The concern here, however, is not with evaluating the merits of specific reforms but with examining the process of planned change, regardless of the sentiments of various segments of the university community.

Universities are notably conservative institutions and have a long historical tradition that is respected by members of the academic community. As a result, academic institutions have resisted change, and the process of reform and innovation has inevitably been a complicated one. Yet the period since the Second World War has been marked by dramatic alterations in higher education in most countries. Historically, virtually all of the world's universities stem from the European model, and can be traced to the universities of Paris (organised by the faculty) or Bologna (developed by the students). Oxford and Cambridge, later developments of the mediaeval models, were the prototypes for North American institutions, while the nineteenth century German university served as a model for graduate education in the United States, Japan and the rest of Europe. The modern American university, as well as the institu-

tions of the colonising powers of Europe, have been models for the universities of the Third World.

The original definition of the university did not include research, graduate training or the myriad functions now accepted as integral to an academic institution. The early university was largely a professional school for law, religion and medicine, with an overlay of what has come to be known as the liberal arts. Early universities reflected the feudal cultures of which they were a part, and were seen as transmitters of an existing culture rather than as creators of new knowledge. But as societies changed, so did the universities. The addition of the research function, the participation of universities in advanced training for a range of specialities, and the gradual expansion of higher education to serve larger segments of the population were all parts of this historical evolution.

As social needs for new technologies increased, the role of the university became more central in industrialising nations. The university became a place for training in many professional and scientific careers rather than just an enclave for the humanities. Universities also became screening institutions for those who were judged to be 'able', those who would, by training, attain key positions in society. These changes were not planned, but, by altering the role of the university in society, they made the modern university a central social institution. Because of this change, many groups were then eager to exert pressure for reform to achieve their own ends and goals.

As universities have become more central in their societies, government authorities have taken a greater interest in them, demanding accountability as well as pressing them to accept new programmes. University budgets have multiplied, and along with added resources have come added responsibilities. Governments and other public authorities—the agencies funding higher education in most countries—have naturally demanded more accountability as universities have become more crucial to national life and as they have required larger amounts of money. Public authorities have increasingly taken a greater role in setting institutional goals and policies, and have often requested reforms that they feel appropriate.

Students have been a key pressure group for reform and change in higher education, although in many cases their role is difficult to evaluate fully. In Latin America, where since 1918 students have had considerable institutional power, their role is clear. The role of students in changing the nature

of universities is more vague and less direct in most other areas. The student activism of the 1960s was a stimulus for some reforms, and in nations like France, the Federal Republic of Germany, Japan and to a lesser extent the United States, students initiated broad discussions of university reform. In the Federal Republic of Germany, the power of the senior faculty was reduced and students gained a share of governance. In few other countries, however, did students articulate clear reform programmes that were even partially adopted. Nevertheless, student initiated criticism and the general unease of the 1960s did stimulate discussion of reform in many nations.

The demands for new technologies and for an increase in the numbers of highly skilled individuals, and similar pressures, have placed strains on the traditional curriculum. Students and others have demanded that the curriculum be changed to include more vocational and scientific subjects. Universities have responded by various means including adding to the curriculum, cutting obligatory courses and subjects, and upgrading technological institutions to university status.

The most critical contemporary force pressing on universities is what Martin Trow has called the shift from elite to mass and, finally, to universal higher education.² The United States, and to some extent Japan, are more dramatically at the stage of 'universal' higher education, with about half of the relevant age group attending post-secondary educational institutions. A number of European countries are approaching the 'mass' stage of higher education, with large numbers attending universities and with post-secondary institutions also expanding rapidly. India and the Philippines are the best examples of Third World nations that have seen rapid expansion of university systems, and that have subsequently been faced with special problems of the widespread unemployment of graduates and the misallocation of resources. The phenomenon of rapid growth is world-wide, and few countries have escaped its effects.

The effects of rapid expansion on institutions of higher education have been dramatic. Not only have student numbers increased, but the social class base from which university students have traditionally been drawn has also expanded, and the consensus that existed concerning the nature and purpose of higher education for a small elite has disappeared. The academic profession has grown rapidly, and many faculty members, particularly the younger ones, no longer share a common view of higher

education. Institutional governance has become more difficult as institutions have grown to 30,000 and even 50,000 students. Facilities, such as libraries, laboratories and dormitories, are taxed beyond capacity. In sum, the traditional concept of the nature of the university has been challenged by expansion.

While the impetus for reform comes largely from external sources, the process of reform itself must necessarily be handled for the most part by the universities. Only those directly involved in the academic enterprise can translate social demands into educational programmes and administrative forms. Even the various government-appointed commissions that have examined higher education and outlined broad programmes for reform have included a significant number of academics in their ranks. Indeed, it is often the process of implementation that causes the greatest problems. It is also true that the academic community generally seeks to keep change within the parameters of the traditional roles of universities. This perhaps counterbalances the enthusiasm of public authorities for solving social problems quickly and without regard to the broader functions and traditions of higher education.

Obstacles to reform and innovation

With all of the powerful forces outlined above pressing for reform and change in higher education, one might ask why universities have changed so little! The answer may lie in the very organisation and tradition of the university. Both the traditional function of the university as custodian of culture and the jealously guarded autonomy of the faculty make change difficult. Reform may also be hindered if there is no continuity in pressure from outside forces. There are, then, a number of reasons why reform in higher education is such a difficult and time-consuming process.

As noted earlier, universities are often old and inherently conservative institutions. A key element of their traditional role has been to conserve the 'high culture' and transmit this culture to small groups of individuals. It is only in very recent years that universities have come to be seen as significant stimulators of technological development. The faculty are key defenders of the traditions of the university and, as a result, are often an important conservative element. As a result of their particular academic roles, which (at least at the senior levels) accord them considerable power

and prestige, the faculty has not been anxious to innovate. Professors often see reform as a threat to their own power—and they are often correct in this assumption. Their traditional image of the university as a place for scholarly inquiry and reflection differs from more recent concepts of the role of higher education. The faculty feels most strongly about university autonomy or the ability of the university to set its own policy and to function without outside interference. Reform proposals are often seen as a threat to this autonomy. Autonomy is also seen to be related to prestige and professionalism. As autonomy is 'threatened', many of the academic community feel that one of the first casualties will be their self-image of professionalism. Thus, for a combination of reasons—academic, professional and status—the professoriate is seldom enthusiastic about major changes in higher education.

Reform is often costly. Innovative programmes tend to require not only alterations in the curriculum but also additional staff, better laboratory equipment, new books and the like. Major reforms, such as the establishment of new universities, require the expenditure of very large sums of money. As a result of financial problems, well-developed reform programmes are often curtailed or limited. Clearly, funding is a key variable in the reform equation.

Substantial change is almost invariably controversial. And controversy breeds resistance, debate and, in many cases, eventual compromise. Not only may the faculty oppose elements of the proposals, and government officials find them too costly, but the reforms may be politically inexpedient. Ministries of Education, for example, may feel that their power would be eroded by reform that permitted increased local control. Government officials may be reluctant to allow substantial student participation in governance for fear of possible 'radicalism' among student representatives. Administrators within universities may not wish to lose their own power or prerogatives in a reform programme. Governments may feel that reforms do not allow sufficient accountability from the universities, while faculty members may feel that the same reforms erode traditional concepts of university autonomy and perhaps even academic freedom.

Goals of reform and innovation

Many goals have been sought by reformers and innovators in various

countries. They range from massive transformation of the academic system, as occurred in Sweden during the 1968 reforms, to modest innovations in curricula in particular fields of study. The following listing of major trends in reform around the world is by no means complete, but it will give an indication of the scope of reforms and innovations that have resulted from the kinds of pressures on higher education that have been outlined.

Comprehensive universities

A number of European countries, most notably the Federal Republic of Germany, have begun to restructure their post-secondary education system in order to give university status to technological institutions, teacher training colleges and other institutions, and to provide a range of different kinds of programmes in university-level institutions. The United Kingdom has also moved in this direction, not only by 'upgrading' technical institutes, but by setting up the Council for National Academic Awards, which has power to grant degrees.

Open universities

Led by the United Kingdom's Open University, a number of nations, including India, Japan and the United States, have attempted to establish new institutions that provide higher training and degrees in established universities. Open university structures are meant to provide increased access to higher education at lower cost to a wider cross-section of the population. The British Open University uses television and radio, films and traditional teaching methods to dispense higher education. There is no 'campus' in the usual sense.

Interdisciplinarity

There has been considerable criticism of traditional academic disciplines as stumbling blocks to advancing knowledge in a period of rapid technological change. Criticism focuses on the organisation of universities into traditional (and conservative) departments. In an effort to force changes in the traditional disciplines and faculty organisation, interdisciplinary structures and orientations have been created. The Federal Republic of Germany and France have been leading exponents of interdisciplinarity, although some universities in the United States have also tried to break down the traditional departmental structures. It remains to be seen whether these, and other, efforts will meet with success.

Accountability

Under the broad heading of accountability, one can list a number of efforts to make higher education more accountable to public authority and to co-ordinate it with national policies and needs. Part of the effort for accountability is increased government concern for co-ordination and planning in higher education, and the creation of more rational management techniques. The opposite side of the accountability argument is autonomy—the traditional concept that universities should have considerable control over their own affairs. A few countries, such as Yugoslavia, have attempted to give universities accountability. Accountability does not necessarily have to mean centralisation, but in most cases it has resulted in increased government involvement in academic affairs. Accountability for funds almost inevitably means accountability for programmes as well. The new French approach to system-wide university reform stresses accountability for funds and for broad policy matters, but allows decentralisation of local academic decision making. The clear worldwide trend is in the direction of public authorities demanding that higher education be accountable for the very large amounts of money spent, and also for broad policy and curriculum matters. Even such mechanisms as the British University Grants Committee, which has traditionally insulated the universities from government interference, are under criticism.

Administrative rationality

Related to the question of accountability has been a trend to streamline academic administrative structures to make them more 'efficient' and 'rational'. Modern management techniques have increasingly been incorporated into the universities to replace a very anarchic and often unwieldy administrative structure that has served universities for centuries. These reforms take many directions. Budgeting systems like PPBS (programme-planning-budgeting system) are aimed at making units of the university accountable for the expenditure of funds and responsible for developing priorities for their own budgets. The increased size and expense of universities has greatly stimulated the growing bureaucratisation of academic institutions. Administrators have assumed increased power over the direction of universities in many countries and the trend is very much in the direction of increased administrative control. This is intended to assure a more 'rational' operation of what have become modern bureaucratic structures rather than communities of scholars separated to some extent from the mainstream of society.

The curriculum

Almost everywhere, the traditional concept of liberal education in the university is under attack. Demands to make the curriculum more 'relevant' mean different things. Radical students define 'relevance' as knowledge that will help topple the established social order, while government officials and manpower experts see it as training that will fit university graduates for jobs in a technological society. The faculty, which is the key element defending the traditional curriculum, has not put up a spirited defence, and in most countries the trend is towards an increasingly vocational curriculum. Many of the 'required' courses or subjects were dropped from the curriculum during the 1960s in the spirit of the period. While there has been no re-introduction of such obligatory courses, the vocational and technical aspects of curricular offerings have expanded significantly.

Democratisation and participation

The 1960s brought worldwide protests against the academic aristocracy—the 'academic mandarins'—who have traditionally controlled the internal workings of the universities. These protests by students and some younger staff fitted neatly into the plans of government authorities to mould higher education to the demands of technological societies, since in many cases wider participation breaks down the traditional aloofness of the university. As a result, there were changes in a number of countries that provided increased democratisation and participation by the various elements of the academic community in the affairs of the universities. This trend has perhaps gone farthest in the Federal Republic of Germany, where students and other university employees have been included in the governance process along with the professors. France and Sweden have also provided opportunities for some participation by non-professional staff in governance. The United Kingdom and the United States, despite some pressure, have not moved significantly towards increased democratisation of the universities. It might be added that 'democratisation' may come into conflict with notions of efficiency.

The professoriate

Without question, the professoriate has been under attack in most countries. Trends towards democratisation have weakened the traditional power of the faculty, and accountability has further eroded its influence. Rapid expansion increased the size of the faculty and at the same time diminished its sense of cohesion. The faculty has lost some of its power

over the governance of the institution, and has probably suffered some decline in social prestige. In few countries, however, has the status, working conditions or orientation of the faculty changed fundamentally. There have been some improvements in terms of autonomy, income and status for junior staff, and a corresponding decline in the power of the senior professors.

Miscellaneous innovations

A large number of somewhat unclassifiable reforms have occurred in universities in various countries, which have altered to some extent the nature of the academic enterprise. Re-arranging the interlinkage of academic degree programmes has been attempted in many countries. 'Sandwich courses', which alternate academic work and on-the-job experience, have proved successful in the United Kingdom. The Chinese practice of combining academic work with practical training is another trend in this direction. In the United States, the Carnegie Commission has recommended that degree programmes be shortened and that students be permitted to 'stop out' for varying periods of time. New, two-year degree programmes in community colleges in the United States and short-cycle, higher education in various European countries are another effort to provide post-secondary alternatives to the traditional universities.

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The legacy of the 1960s

The period of the 1960s and 1970s was one of major turmoil and considerable change and innovation in higher education. From the perspective of the mid-1980s, it is possible to assess both the successes and failures of some of the major reforms. Not since the German university triumphed as a worldwide academic norm in the 1870s has there been so much ferment. Pressures for expansion, technological development, student unrest, new instructional methods and accountability have all caused changes in universities that have only been mentioned in passing in this discussion. The 1960s saw problems created by growth and expansion, as well as by political unrest in a number of countries. The 1970s, on the contrary, at least in the industrialised nations, caused difficulties because of demographic trends (mainly a slowing down of the birth rate) and fiscal

constraints. The combination of growth and then contraction placed academic institutions in a particularly difficult situation. Despite all of these challenges, the traditional model of the university has shown remarkable resilience, and the professoriate, while contributing relatively little to the debate over the direction of change, has helped to maintain considerable stability in many academic systems. It is likely that, in the long run, major changes will occur, but it is also likely that universities will retain their traditional identities and modes of operation.

It may be useful to indicate the situation in a number of nations to illustrate the variety of results in terms of reform and innovation in higher education brought about by the pressures of the past two decades.

In *China* a complete alteration in the political direction of society created a new thrust in higher education. After being virtually abolished during the Cultural Revolution in the early 1960s, the universities were given major emphasis as one of the key elements of China's modernisation policies. Research was stressed, the old emphasis on academic study as opposed to a politicised work-study arrangement of the previous period was restored, and in general the Chinese universities have moved towards a more 'Western' academic orientation at the same time as enrolments are being expanded.

In the *United States*, the turmoil of the 1960s had relatively little impact on the structure and governance of higher education, although the traditional curriculum was weakened and replaced, in many institutions, by an elective system. In response to the fiscal problems of the 1970s, state governments stressed the need for accountability and they assumed more control over many aspects of the financing of higher education, and in some cases began to control the main lines of study programmes as well. Student demand for technological and management training led to rapid changes in curricular choices, causing problems within institutions. Later, the faculty, realising that the core of the liberal arts curriculum was almost lost, began to give more attention to general education, which restored many of the requirements common in earlier years.³ During all this turmoil, the basic structure of the academic system did not change.

In the *Federal Republic of Germany* and in the *Netherlands*, there was stress on both democratising the governance of academic institutions and expanding enrolments. In the Federal Republic of Germany, legal

challenges by the professors and a lack of support by students and younger staff brought 'democratisation' to a halt, while a court decision re-instated the basic authority of the senior professors. In both countries, fiscal problems and enrolment declines brought an end to the reforms and caused serious problems. In the Netherlands, for example, a government decision to cut expenses has forced a reduction in the academic staff and a major re-organisation of academic institutions.

In the *United Kingdom*, except for the major innovation of the Open University, there has been little change in the British post-secondary education system. However, fiscal problems in the 1970s have caused continuing crises in higher education, with resulting staff cuts, institutional closures, lack of research funding and morale problems. The British higher education system saw a period of expansion and then one of contraction, but relatively little major reform or innovation. The changes that did take place, such as the Open University and the Council for National Academic Awards, which controls the academic standards of the polytechnics, were outside the traditional university system.

In *Southeast Asia*, where there have been tremendous pressures for expansion, the traditional academic institutions have not been basically altered, although a number of new institutions have been added and enrolments in existing universities have grown. In *Thailand* and *Indonesia*, the open university concept is now being implemented. Large numbers of *Malaysian* students are sent overseas to study on government scholarships. In *Singapore*, the university has been expanded not only in terms of enrolment but also in function and scope. In the region generally, there have been few problems resulting from financial shortages. On the contrary, expenditures for post-secondary education have grown dramatically.

These brief overviews are intended to provide a sense of the variety of experiences in many nations with regard to change and reform as nations have responded differently to widely divergent pressures on their academic institutions. Yet overall, the basic academic system has remained unaltered, and some recent trends have in fact strengthened the traditional model.

Conclusion

Virtually every aspect of university reform is complex and difficult to predict, plan or implement. For one thing, the analytical tools of the planner are as yet at a fairly early stage of development. Manpower forecasting, for example, is by no means foolproof. Yet the state of the art has improved considerably and major reform efforts, such as those of the Robbins Committee in the United Kingdom, the Carnegie Commission in the United States and the 1968 Educational Commission in Sweden, indicate that careful research and analysis can contribute to significant change. The greatest problems arise in gaining agreement from the numerous (and often conflicting) interest groups for a particular course of action. Compromises are often necessary; frequently what begins as a radical reform varies little from established practice when it emerges in its final form. Once a reform has been implemented, it is necessary to evaluate it carefully; unfortunately, the evaluation process is often left out of the planning and implementation of a course of action.

Changes inevitably occur in dynamic institutions. The question is not whether higher education will undergo change, but how this change is to take place and for what ends it is intended. This is where the process of purposeful reform—the process of planned change—enters.

Notes

- 1 This is a slightly edited version of Philip G. Altbach 'Reform and innovation in higher education,' *Information file* no. 3, 1985. That paper itself was a revision of one originally written as the introduction to a bibliography on this same theme for the International Bureau of Education, which appeared as *Education documentation and information* no. 223, 1982. Paris, Geneva : Unesco, IBE.
- 2 Martin Trow (1972) 'The expansion and transformation of higher education.' *International review of education* 18, 61-82.
- 3 This sentence appears in the version of the paper presented as *Information file* no. 3, 1985. The whole final section of that version is a reworking and expansion of the concluding section of the original version in *Education documentation and information* no. 223, 1982. This may explain the apparent contradiction between this statement and the final sentence of 'The curriculum' subsection above.

Bibliography

Reference books

- Altbach, P. G. 'Reform and innovation in higher education.' *Education documentation and information: bulletin of the International Bureau of Education* no. 223, 1982. Paris, Geneva: Unesco, IBE.
- , D. H. Kelly and J. Kluczynski *Higher education in international perspective: a survey and bibliography*. London: Mansell, 1985.
- European Centre for Higher Education (CEPES) *International directory of higher education research institutions . . .* Paris: Unesco, 1981.
- Husen, T. and T. N. Postlethwaite (eds) *The international encyclopedia of education: research and studies*. 10v. Oxford: Pergamon Press, 1985.
- International Association of Universities *World guide to higher education: a comparative survey of systems, degrees and qualifications*. 2nd ed. Studies on the Evaluation of Qualifications at the Higher Education Level. Epping, UK: Bowker; New York: Unipub; Paris : Unesco, 1982.
- Knowles, A. S. (ed) *The international encyclopedia of higher education*. 10v. San Francisco: Jossey-Bass, 1977.

Selected studies

- Eurich, N. P. *Systems of higher education in twelve countries: a comparative view*. New York: Praeger, 1981.
- Fogel, B. R. *Design for change: higher education in the service of developing countries*. New York: International Council for Educational Development, 1977.
- Fulton, O., A. Gordon and G. Williams *Higher education and manpower planning: a comparative study of planned and market economies*. Geneva: International Labour Office, 1982.
- Hetland, A. (ed) *Universities and national development*. Stockholm: Almqvist and Wiksell International, 1984.
- 'Higher education in Asia and the Pacific.' *Bulletin of the Unesco Regional Office for Education in Asia and the Pacific* (Bangkok) no. 24, 1983.
- Hiroshima University. Research Institute for Higher Education. *Comparative approaches to higher education: curriculum, teaching and innovations in an age of financial difficulties*. Hiroshima, Japan: Hiroshima University, 1983.
- *Innovations in higher education: exchange of experiences and ideas in international perspective*. Hiroshima, Japan: Hiroshima University, 1981.

- Kim, Y. et al. *The role of the university in national development: four Asian case studies*. New Delhi: Vikas Publishing House, 1980.
- Latapi, P. *New trends and responsibilities for universities in Latin America*. Paris: Unesco, International Association of Universities, 1980.
- Maleche, M. K. and S. N. Bogonko *Strategies for improving university teaching and learning in Africa: report on the International Workshop in Nairobi/Kenya*. Bonn: Education and Science Centre, German Foundation for International Development, 1982.
- Organisation for Economic Co-operation and Development/Japan Seminar on Higher Education, Hiroshima and Tokyo, 1984. Hiroshima University. *The changing functions of higher education: implications for innovation*. Hiroshima, Japan: Hiroshima University, 1985.
- Prange, W. W., D. Jowett and B. R. Fogel *Tomorrow's universities: a worldwide look at educational change*. Boulder, CO: Westview Press, 1982.
- Psacharopoulos, G. and B. C. Sanyal *Higher education and employment: the IIEP experience in five less-developed countries*. Paris: Unesco, International Institute for Educational Planning, 1981.
- Sanyal, B. C. (ed) *Higher education and the new international order: a collection of papers*. London: Frances Pinter; Paris: Unesco, 1982.
- Thompson, K. W., B. R. Fogel, and H. E. Danner *Higher education and social change: promising experiments in developing countries. Vol. 2: case studies*. New York: Praeger, 1977.
- Yesufu, T. M. (ed) *Creating the African university: emerging issues in the 1970s*. Ibadan, Nigeria: Oxford University Press, 1973.

Note: *Information file* no. 3 also lists a selection of national and international organisations working in the field of higher education, and their publications. A copy of this list can be obtained by writing to:

The Director
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 The University of the South Pacific
 P.O. Box 1168
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