Higher Education, Democracy, and Development: Implications for Newly Industrialized Countries

PHILIP G. ALTBACH
State University of New York at Buffalo

ABSTRACT: Universities are central institutions in modern societies, providing education, research, and communication of scientific information needed by technologically based societies. The focus of this essay is on the role of universities in the emerging economies of the Newly Industrializing Countries (NIC) of the Pacific Rim, although this discussion has relevance for all countries seeking to enter the ranks of the industrialized nations. Universities in the NICs are especially important because they are the windows through which modern science enters society. Academic institutions have also served to provide an important critical voice to emerging democracies because their faculties often contribute to public debates and discussions. The roles of faculty and students in the development of the NICs is also examined in this essay.

Keywords: universities, communication, democratic institutions, students, faculty, economic development, political activism, Research

Universities are central institutions in modern societies. Not only do they provide the education that is needed for technologically based economies but they are also the most important centres for research and for innovation in many fields. They are essential parts of all modern societies. Universities are participants in the international knowledge system, ensuring that the society is aware of what is happening in the increasingly global world of science, scholarship, and research. Universities also play a key role in society by providing research on history and current societal development — matters of considerable importance in countries which have undergone significant social and economic change. The academic community provides the largest and most talented group of scholars, researchers, and intellectuals — people who constitute the knowledge base of the society and who, through their expertise, play a crucial role in society. Universities are also politically important. They not only provide the elites with training but also educate the opposition. Universities are the source of ideas and their very essence as knowledge-based institutions may have a

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profound impact on societies going through difficult periods of transformation as is the case in the newly industrializing countries (NICs). In short, the university is, in many ways, the quintessential institution of the new knowledge-based society of the 21st century.

At the same time, universities can be troublesome institutions, especially in transitional societies. They are often hotbeds of intellectual and sometimes of political dissent. The professors, through their writings and sometimes their teaching, may present alternative perspectives to established orthodoxy. Students sometimes engage in political activism and in some instances have overthrown governments.[1] The ideas, and sometimes the actions, coming from the campus may cause difficulties for the authorities, but they are nonetheless important for society because these ideas are often the source of innovation, modernization, and development.

Universities and governmental authority are frequently in conflict. Academic institutions, in most countries, are funded largely by the government.[2] As the research function of universities becomes more prominent, academic institutions are increasingly expensive. Those who provide the bulk of the money for higher education naturally want a significant degree of control over the academic enterprise. In the NICs, there are often additional problems because of the political and societal role of the universities. There are inevitable conflicts between the accountability that the government desires and the autonomy which is part of the academic tradition.

This essay explores the role of the university at the turn of the century, mainly focussing on the rapidly growing newly industrializing countries of the Pacific Rim. The university has an especially important role in the newly industrialized countries (NICs) of Asia. These nations, including the Republic of Korea, Taiwan, Singapore, and several others, have achieved impressive economic success and have joined the ranks of the developed countries. In terms of per capita income, economic output, trade relations, and literacy and education, these countries are as modern as any in the world.[3] They are, in many respects, models for other Third World countries which aspire to economic development. Yet, their academic systems are not yet fully developed and they cannot compete in the international academic marketplace.

Higher Education in the NICs

In all of the newly industrializing countries, the economies are maturing. They are growing more complex, becoming more technologically based, and are developing a larger service sector. As a result of these inevitable economic trends, universities are becoming more important institutions. Yet it is significant to understand that research and high-tech industries did not play a major role in the initial economic success of the NICs. As was the case for Japan, development was based on relatively low-tech, low-wage industries which could compete internationally. For Korea, steel, shipbuilding, textiles, and relatively unsophisticated consumer products exemplified this stage of development.

Where technological inputs were needed, they were purchased from abroad or were sometimes simply copied without regard to the legal niceties.[4] As the economies matured and as they faced growing competition from countries with lower wages and a desire to catch-up, decisions were made to provide more high-tech and value-added products as a means of maintaining competitiveness in changing economic circumstances. Singapore was the first country to see the need for this model of development, and higher education, research, and training became a key part of Singapore's economic strategy.[5]

During the initial stages of development, universities were not seen as a major factor in the process. However, higher education did expand significantly as academic degrees became important for jobs in the growing civil service and increasingly in the expanding private sector. In the past decade, demands from a rapidly expanding middle class for access to postsecondary education led not only to rapid expansion but also to the increased numbers of students who had difficulty finding access at home and went abroad to study. In Korea, as in Taiwan, much of this expansion was carried out by private institutions, and government involvement, while considerable, was nonetheless fairly circumscribed. In both Korea and Taiwan, private entrepreneurs have been active in establishing colleges and universities.[6] The universities were, almost without exception, oriented to teaching while research was not emphasized. The development of the university as primarily a teaching institution and the traditions built up supporting this orientation have shaped academic structures in the newly industrializing countries and have made the emergence of research-oriented institutions difficult. For the society in general, research and development has not been emphasized.

The situation is in the process of dramatically changing, and this is an important moment to consider the role of higher education in a changing economic and societal climate in the NICs. The traditional teaching function of the universities continues to be important as the proportion of jobs in the modernizing economy requires advanced education. Further, a differentiated economy needs a wider range of skills and the universities are called on to provide training for a growing range of specialities. Thus, the universities have been called on to furnish a much wider range of programs, departments, and interdisciplinary units to provide the education that the economy needs. At the base of this development is a good background in general education, as this provides the greatest flexibility for a rapidly changing labour force.[7]

Research and Development (R and D) is becoming a more important part of the mission of the university. This means that there must be a basic change in patterns of funding higher education and in the ethos of the universities. It is not enough to have one high quality institution, like the Korean Advanced Institute of Science and Technology (KAIST), which in any case offers degrees at only the graduate level. The academic system as a whole must become more research-oriented although not every postsecondary institution needs to be heavily involved in research. The expansion of graduate education goes hand in hand with the development of research in the universities. Not only is there a greater

need for people with advanced degrees to work in industry as well as to teach in the higher education system, graduate programs have an integral relationship to the research enterprise (Ben-David, 1969). While it has been common for the NICs to target carefully the disciplines for research and graduate expansion, and this seems appropriate in the light of limited resources, it is necessary to permit a fairly broad expansion of fields and disciplines — it is hard to predict what will be a priority field in the future.

Further, it is probably a mistake to rely on non-university institutions for R and D development. Although it may be more difficult to control the universities, in the long run the university environment seems most appropriate for a well-balanced research and training program.[8] While there has been great stress in recent years, both in the NICs and in industrialized countries, on applied research, universities have traditionally had their greatest strength in basic research, where the results may not be of immediate usefulness. However, basic research builds the base for advanced training as well as being indirectly useful in terms of later applied work. There must be an appropriate balance between the "pure" and the "applied" in terms of the research done in university settings.

Large, complex, and expensive higher education systems are a necessity in the newly industrialized countries. Growing middle classes demand access to higher education for their children. The economy, at all levels, needs increasingly well-qualified workers. There is a shift from heavy, low-wage, low-tech industry to value-added production, high-tech, and the service sector, and all of these require postsecondary training for the workforce. As the NICs become increasingly involved in the international knowledge system, the universities become the most important point of contact with that system.

In addition, expansion has been a key characteristic of higher education development in the NICs, as it has been in most of the rest of the world. The NICs are currently moving to an access rate for higher education that is similar to patterns in Western Europe — about one-quarter of the relevant age cohort. Indeed, it is likely that they will exceed this rate. The inevitable conflicts between expansion on the one hand and an orientation to research on the other mark the development of universities in the Third World. In many countries, there are too few resources to expand higher education, to maintain quality, and to support research, and the result in much of the Third World has been the continuing rapid expansion of enrolments but a deterioration of academic standards at the same time.[9] The NICs, with adequate financial resources and a growing base of highly educated personnel, do not necessarily face this common Third World dilemma.

The Development of an Indigenous Scientific System

Traditionally, the NICs have been dependent on the industrialized nations for both basic and applied scientific research. They have been users rather than producers of science and technology. The NICs must develop their own scientific systems and academic institutions. They cannot, in the long run, rely on others

to produce all of the research that is needed for emerging technologically based industries. There will always be a tension between research produced abroad and local needs and research productivity, but the development of a viable research base is important for several reasons. It is important that some research be produced locally that will be related to the specific needs of local industry and development, not only in the sciences but also in the social sciences and humanities. It is also necessary that there be a viable research base in order to effectively analyze, interpret, and use advanced research and technology from abroad. Academic institutions in the NICs are in the somewhat contradictory position of being both users and producers of advanced knowledge. The development of an extensive indigenous network of academic and research institutions is necessary for this purpose.

Much of the stress has been on science and technology in terms of research development. However, the social sciences and humanities are of considerable importance and should not be neglected. As societies become more complex, there is a need to analyze social trends and emerging problems in order to deal constructively with them. Population trends, for example, have a profound impact on the labour market and the economy. Demographers and sociologists are required to interpret such developments. Scholars in the humanities contribute to an understanding of culture, literature, and history in societies which are in the midst of rapid change. It can be argued that in some ways the social sciences and humanities are even more important than scientific expertise because it is impossible to rely on external knowledge for analysis of society and culture. It is quite common to downplay or ignore these "soft" fields as academic systems expand. This is a mistake, since they can make significant contributions.

A sizable academic system is also necessary to provide indigenous training for the growing numbers of graduates required by the expanding and increasingly sophisticated economies of the NICs. At the present time, all of the NICs send a significant number of first-degree students overseas. There are, for example, more students from Hong Kong studying outside the territory than in it. This situation is probably a mistake, as it is in the long run probably less costly to educate these students at home. Further, a domestic education will yield positive results in terms of the appropriate socialization of the students. Significantly, Korea no longer offers government scholarships for study abroad at the undergraduate level, reflecting increased emphasis on domestic universities. It is inevitable that significant numbers of students will go abroad for advanced degrees, although even here the NICs should be educating a larger proportion of their students at home. The link between graduate-level training and the production of basic and applied research in the universities is very direct, and there are strong arguments for expanding graduate training although the costs are relatively high.

The building of the infrastructures of higher education is neither easy nor inexpensive, but it is absolutely necessary. The transformation of academic institutions from mainly teaching institutions with heavy teaching responsibilities

for the academic staff to more research-oriented universities is a necessity. Further, facilities such as top quality libraries and research laboratories are needed. Decisions concerning the orientation of these facilities will need to be made — few, if any, of the universities in the NICs can aspire, as for example Harvard University does, to collect books and journals comprehensively in most fields of knowledge. Such comprehensiveness is probably beyond the fiscal capacities of most NICs. But it can be argued that there should be at least one academic institution that provides both wide and deep coverage of current scholarly materials from the major industrialized nations. In the NICs, this means collecting not only from the United States and Britain but also obtaining materials from Japan since Japanese science is rapidly developing and is relevant for the needs of the Asian NICs.[10]

Journals and books are integral to an indigenous academic and scientific system, and it is important that means be available locally to disseminate knowledge. While science will be dominated by the major internationally circulated journals from the metropolitan countries, a local dissemination system is useful as well (Gopinathan, in press). Some scholarly materials, in the social sciences and humanities as well as in the "hard" sciences, will not have international relevance but nonetheless are of importance to the country in which they are produced. It is also important to provide local scholars with relatively easy access to sources of publication. It is interesting that several NICs have taken somewhat different approaches to journal development. In Korea, several indigenous language journals in the sciences have been established along with a number of Korean language publications in the social sciences although these journals serve to some extent as vehicles for translations of articles written overseas. Taiwan, in contrast, has placed greater stress on local scholars publishing in international journals. Although the medium of instruction in Taiwan is Chinese, many of the journals in the sciences are in English in order to communicate Taiwanese science to an international audience and to ensure that Taiwanese scientists are part of the international knowledge system. Singapore, which uses English as the medium of instruction in higher education, has developed some scholarly journals in English but none in indigenous languages (Eisemon & Davis, 1989). There are different approaches to providing an appropriate scientific infrastructure. But it is crucial that careful attention be given to this aspect of the development of higher education.

The creation of an indigenous scientific system is a complex task. At its centre is the academic profession itself, since the teachers and researchers are the most important component of the system. The other elements of the scientific system cannot be ignored. The existence of libraries, laboratories, journals, and the other elements of a modern academic and scientific system are necessary pre-requisites. Without the necessary array of institutions and structures, a fully effective scientific system is impossible.

Historical Patterns and Contemporary Variations

Modern universities are western institutions that have been transplanted all over the world (Ashby, 1966). The process of academic development in non-Western countries is not always an easy one and care must be given to the implanting of academic institutions. In much of the Third World, the higher education pattern was imposed by the colonial power — and that basic institutional type has in all instances remained after independence (Altbach & Selvaratnam, 1989). For a few countries, such as Japan and Thailand, which had no colonial ruler, the choice of the academic model was without external constraint, but Western models were adopted in any case. Korea is a rather singular case, since it adopted a generally American pattern at its own initiative in the 19th century, only to see the Japanese model imposed during the period of Japanese colonial rule between 1910 and 1945 (Lee, 1989). After independence was regained, the dominant external influence was again American. The point of these comments is that in all cases, a Western institutional model was adopted. In that sense, there is no "Third World" university, only Western transplants. Of course, there was a great deal of adaptation to suit local needs and throughout much of the developing world, academic institutions have developed considerable legitimacy.

The development of higher education was one of imposition and borrowing.[11] The process of entrenching the academic idea in its new environment was not always easy and it was seldom complete. Academic institutions are fragile — after all, they developed in the West over a period of more than six centuries with many variations and many problems. To expect that non-Western societies could immediately adopt all of the elements of the university without difficulties is unrealistic. Yet, for a university to completely fulfill its role and to aspire to the highest international standards, it must have most of the characteristics of the modern university — and these include a considerable degree of academic freedom and autonomy, an appropriate level of support, a high level of faculty morale, the ability to set its own curriculum and other attributes (Shils, 1983).

History shows that it is not easy to build up a fully functioning academic ethos. It takes strong leadership by academic institutions and a willingness by governments to permit the universities to develop fully their traditions of autonomous development. In many developing countries, academic institutions are not able to fulfill their potential because they have not been permitted to develop completely. It is, of course, a challenge to governments, many of which are unfamiliar with the ethos of the university, to permit the emergence of an institution which may sometimes challenge the authority of the government and which, in any case, is using public funds.

There are many academic models to choose from in the modern world. The most influential at present is the American academic model (Altbach, 1987). This is the case for a number of reasons. The American university idea — combining research, service to society, and access of a large and growing segment of the population — fits the needs of many developing countries. The United

States has, through its assistance programs, fostered the American academic model in other countries (Arnove, 1980). American science is a powerful worldwide force and this too has made the American academic model attractive. Finally, many of the leaders of Third World academic systems graduate from American universities and they naturally look to the American institutional model. Korea, both because of its historical ties and contemporary realities, has gravitated to the American model, probably without careful consideration of other available alternatives.[12] By readily adopting available foreign models, the relevance of the institution to its society may be diminished.

There are, of course, other patterns for university development. The British model remains strong, especially in those countries which were once colonies of Britain, although it is fair to say that even in these countries American influences are growing (Hanson, 1968). In former French colonies, the French academic model predominates. In Latin America, the original Spanish and French influenced academic models are being modified by American influences and by the rapid growth of private sector higher education (Levy, 1986).

In the newly industrializing countries of Asia, it is possible to see a process of slow change and adaptation as academic systems grow and develop. The two academic systems which were patterned on the Japanese model — Korea and Taiwan — reacted somewhat differently to this model after the Japanese colonial period ended. Both Korea and Taiwan dropped the Japanese organizational pattern after 1945. In Korea, the Japanese model remained for a period and was replaced by an American oriented system. The American model was not only familiar to the Koreans because it had been entrenched in the 19th century but was also strongly advocated by American aid officials who were powerful in Korea in the aftermath of the Korean War. In Taiwan, which became the Republic of China after the Nationalist defeat on the mainland and the migration of the Nationalist government to Taiwan, the Chinese academic pattern, again strongly influenced by the United States, was put into place (Tsurumi, 1977). However, more Japanese influence remained in Taiwan than in Korea. Singapore and Malaysia have retained the core of the British academic model but have adopted elements of the American system as well. Singapore has emphasized research and graduate study as an increasingly important part of the academic system, while Malaysia has expanded higher education and shifted the language of instruction from English to *Bahasa Malaysia* (Gopinathan, 1989). These changes have been made in order for the academic system to respond to perceived needs. Two of the NICs, Korea and Taiwan, made a significant break from the immediate past in shaping their post-war higher education system but even in these cases the model adopted was not new. And the changes that have been made in later years have been within the broad context of the existing academic models.

While it is true that virtually all universities in the Third World were imposed by colonial rulers or were chosen from external models, it is fair to say that academic institutions have become entrenched in most developing countries. While there is much criticism of the universities as "alien transplants" and

as institutions that are irrelevant to national needs, the fact is that academic institutions have flourished in this alien soil and have become central institutions in their societies.[13]

The International Context of Inequality

It is not very difficult to create a modern university and ensure that it provides postsecondary education at the highest international levels to students. All that is needed is money, good academic leadership, a long-term commitment to the institution, and the ability to select top quality students. Academic institutions in all of the NICs have, with somewhat different strategies, orientations, and levels of quality, made efforts to build up "world class" academic standards. In Korea, Seoul National University and Yonsei University, among several others, provide "international standard" higher education. In Taiwan, the National Taiwan University and several of the other national institutions fall into this category, as does the National University of Singapore and the University of Hong Kong. While these institutions may not match Harvard or Oxford in prestige, in facilities, or in academic quality, they are quite competitive internationally. The academic institutions of the NICs not only form a "pecking order" within their countries but they are also part of an international system of universities and will inevitably be ranked in this system.

However, these operate in the international knowledge system which places them at a disadvantage. Further, it is virtually impossible for the universities of the NICs to achieve positions of full quality internationally. Language is one issue. English is the major language of scientific communication and academic systems that do not function in English are at some disadvantage in this context. Publication is somewhat more difficult and it is harder to gain international scientific recognition. Even the Japanese universities, with strong traditions of scholarship, find themselves at a disadvantage because of language in terms of communication and publication. A few countries spend most of the world's total R and D expenditures. The United States, a few European countries, and Japan dominate R and D spending. It is extraordinarily difficult for newcomers to build up the scientific infrastructures or to spend the sums necessary to support basic scientific research in many fields. The patterns of R and D expenditures help to maintain the dominant positions of the major academic "superpowers." Most of the world's more than 100,000 academic journals are edited and published in just a few countries and the overwhelming proportion of key scientific journals are published in English.[14]

The very size of the academic systems in the major Western countries gives these universities significant advantages. In the United States, for example, there are more than 600,000 teachers in postsecondary education — perhaps 25 percent of the world's total academic profession. There are more than 3,000 institutions of higher education. American academic libraries are major purchasers of books and journals — indeed, they are the largest part of the market for scholarly materials in English. It is possible to provide one example of the

advantage of size. Because scholars in the United States are the largest producers of science and also the largest consumers of scientific information through journals and books, they dominate the network of scientific communication.[15] The research paradigms and concerns of American science naturally tend to dominate the networks. Issues which may be important in smaller academic systems, and especially those which are at the periphery in terms of language and contributions to basic science will tend to be ignored in the international scientific marketplace.

It is clear that there are very significant inequalities in the international knowledge system, inequalities engendered by the nature, scope, and size of the system, and not, generally, by deliberate policies of universities, governments, or publishers. However, those who dominate the system are not dissatisfied with it, and their policies and practices tend to work to perpetuate the *status quo*. The point of this discussion is to point out that the nature of the international knowledge system and the world hierarchy of universities does make it more difficult for the newly emerging universities of the NICs to gain a position of international prominence. Further, the relatively small scientific systems in the NICs will find it impossible to develop scientific equality in most fields. Careful choice of research emphasis and investment in targeted areas may, however, permit the NICs to carve out areas of excellence and international prominence. It is, nonetheless, important to understand the nature of the international knowledge system and the place of the NICs in it. While the system is not unchangeable, it is nonetheless very strong and it is well-entrenched.

Key Elements of Higher Education Development

While higher education systems take into account international realities, the basic challenge is internal. The newly industrialized countries have the wealth, the educational base, and the societal need to build up "world class" academic systems. Indeed, they have made significant progress already. There are a number of issues which academic systems in the NICs — and in most other countries for that matter — must consider when building and maintaining institutions of higher education.[16] Academic institutions, it must be remembered, are not easily built up and yet are easy to destroy.

Autonomy and Accountability

Academic institutions are quite unusual in that they are, for the most part, funded by the state yet claim a significant amount of autonomy. The tension between accountability (state knowledge and sometimes control over the finances and perhaps the activities of universities) and autonomy (the ability of academic institutions to make their own decisions concerning a wide range of matters) exists in every country.[17] In the industrialized nations, it has become a point of considerable controversy as the costs of higher education have increased at a time when public funds are limited. Indeed, the Thatcher Government in Britain abolished the University Grants Committee (UGC), which

provided government funds to the universities in a way that provided a maximum of autonomy, in favour of a new Universities Funding Council (UFC), which will provide for a much greater degree of accountability.[18] In the United States, autonomy has been increasingly limited by regulations of the federal government dealing with specific university policies, for example with regard to access to information or aspects of the hiring of staff. It has also been limited by the states which have been increasingly concerned about how funds are spent. It should be noted that in the United States the private colleges and universities have more direct autonomy in terms of freedom from government control, but even they are not fully autonomous because if they accept any governmental financial aid they are subject to some regulations.[19] Despite tensions, there is widespread agreement in the Western industrialized nations that a significant amount of autonomy is needed for a university to function effectively.

In order to develop fully, academic institutions need autonomy over their own governance and over the basic internal decisions that are made. It is, of course, possible to have functioning universities with a limited amount of autonomy, as is the case in the former Soviet Union, but it is widely agreed that the best universities in the world have a very high degree of autonomy. They are able to appoint and promote their own academic staff without interference from external authorities. They may admit students and decide on the structure of degrees and on student performance. They are able to develop systems of internal governance which permit academic structures to operate within the universities free of external constraint or control. And, quite importantly, the universities provide their staff members with a high degree of professional autonomy and with unfettered academic freedom. Not only is academic freedom protected in the public pronouncements of the universities but there is also in place carefully arranged policies and administrative structures to ensure that academic freedom is not violated. Academic freedom is generally seen as a key part of the autonomy of the institution and of the individual professor (Altbach, 1988b).

Issues of autonomy and accountability are particularly difficult in developing countries and in the NICs. Typically, Third World universities have had weaker traditions of autonomy, in large part because colonial authorities did not permit such traditions to develop. Further, after independence, Third World governments tried to harness universities to meet goals of national development. They also feared that autonomous academic institutions might become centres of political opposition. Finally, the development of universities was very expensive and governments naturally wanted as much accountability and control over the goals and the operation of universities as possible.[20]

There is a great need for an agreement concerning the appropriate levels of autonomy on the one hand and accountability on the other in the NICs. The situation in Korea, for example, is somewhat unusual because while 70 percent of the academic institutions are private, there is nonetheless a significant amount of government control over institutions in both the public and private sectors even though private institutions receive little if any funding from the government. It

is possible that the institutional arrangements that work reasonably well in the Western industrialized countries may need some modification in the NICs, but it is clear that a significant level of autonomy is needed if universities are to develop their full potential. Universities must have autonomy to participate effectively in the international knowledge system and to obtain the respect of the world academic community. In general, there is probably too much governmental control over universities in the NICs. The emerging "world class" institutions need to be permitted more participation in their own development.

Academic Freedom

Related to autonomy but also distinct from it is the highly controversial issue of academic freedom. Developed first in the medieval European universities and then expanded in the German universities in the 19th century, academic freedom was limited to the right to teach one's speciality in the classroom and to publish in one's field of expertise. Academic freedom did not extend outside the world of teaching and scholarship. In the United States, the concept of academic freedom was significantly expanded in the early 20th century to include guarantees for the college and university teacher in the classroom, in publications, and in public life to express opinions not only in the area of scholarly expertise but also on other subjects without threat from external authorities. In addition, academic freedom was linked to the tenure system, which guaranteed permanent appointments to academic staff after a lengthy probationary period and a careful evaluation of qualifications (Pincoffs, 1969). However, even in the United States, academic freedom has not always been fully protected as, for example, during the "McCarthy Period" in the 1950s when some professors were dismissed for political reasons and many others were intimidated (Lewis, 1988; Schrecker, 1986). Despite some lapses and some variations among countries, there is widespread agreement in the industrialized nations that academic freedom is a key policy for higher education and it has been included in internal and often in external legislation concerning higher education.

The challenge is significant in the NICs, where academic freedom is not yet fully institutionalized. In general, universities and individual academics have both more autonomy and more academic freedom than is the case for the rest of the society. But there are significant problems. Some NICs have inadequate legal and institutional protection for academic freedom. Others place limitations on topics for research and publication. There are sometimes restrictions on publication or public statements by academics. Professors are sometimes dismissed from their jobs for ideological or political reasons. While the norms of academic freedom have grown stronger in the very recent period, there is nonetheless need for further development of both the concept and the institutional norms of academic freedom. In the United States and other Western countries, academic freedom is directly linked with job security (tenure). This provides a very significant measure of protection and, just as important, it stresses the idea that academic freedom is fully honoured and protected in universities.

The Academic Profession

The heart of the contemporary university is the academic profession. No reform or institutional transformation is possible without the commitment of the professorate. The professors do the teaching and conduct the research. They also have the primary role in university governance. Their attitudes and values have an impact on their students and on the ethos of the university.[21] Their influence, through their teaching and research, can be significant. And their influence extends beyond the classroom. In many countries, including the NICs, the professorate plays an important societal role as well, influencing public opinion and contributing to debate on many issues. The professorate holds a respected position in society, and the views of academics are considered carefully. Professors write in newspapers and appear on television. They sometimes serve in official governmental positions, even as ministers or senior advisors to key policy makers. While some academics may be active in oppositional organizations and highly critical of government policies, others serve the government (Altbach, in press). In Korea, for example, professors have frequently served in senior government positions including the Cabinet and a number of academics from the top universities are currently serving in ministerial positions. The academic profession is a small but highly influential elite group in many societies. In countries that have restrictions on freedom of expression, a poorly developed mass media, or an emerging intellectual class, academics tend to be particularly powerful as opinion makers.

The professorate is by no means a unified group. It is divided by discipline and speciality. It is composed of many different subcultures. Physicists think very differently from sociologists. Social scientists, for example, tend to be more to the left in their political attitudes than engineers or those in the "hard" sciences. Further, professors in the elite universities tend to be more interested in playing a societal role than those in less prestigious institutions. It is also possible to divide the profession into "cosmopolitan professors," who tend to be more oriented to their disciplines and to research and to a national and international community of scholars, and "locals" who are oriented to their institutions and to teaching (Gouldner, 1957). The cosmopolitan scholars tend to be in the more prestigious institutions and are better known not only among their colleagues but also in the wider intellectual society as well. They often are involved in business enterprises as well as government.

The academic profession tends to be relatively underpaid when compared to individuals with similar qualifications, yet academics in most societies are solidly in the middle or upper middle class. Where academics are underpaid, they will obtain additional employment either by teaching at more than one university or by seeking consulting or other remunerative activities. Some of the most able will even take the opportunity to leave the country and take up positions where salaries and working conditions are better.[22] Thus, if academic institutions expect the full-time commitment of the professorate, salaries must be appropriate.

It is also important to understand the social class backgrounds of the profes-

sorate. Academics in most countries come from urban backgrounds and relatively privileged families. In some countries, particular groups in the population tend to choose academic careers. In Japan, many Christians tend towards academic careers, as do many Jews in the United States. They will tend to reflect the orientations and interests of their backgrounds. It is often difficult, for example, to convince the best professors to teach in universities located far from the major urban areas.

The academic profession often tends to express liberal or even radical views on societal issues but to be rather conservative on issues relating to the university. They generally oppose reforms that will alter established patterns of work and governance. Since the professorate is the key force in academic governance, their attitudes towards change in higher education makes change difficult. In Japan, for example, external events have been the main force for reform, and the entrenched power of the academic profession has limited significant change (Kitamura & Cummings, 1972).

The academic profession functions in an unusual institutional context. Professors are, after all, employees of large bureaucratic organizations and very often government servants, although their working conditions provide a significant measure of independence. At the same time, they have significant institutional and personal autonomy. The ethos of the academic profession is one that stresses autonomy and academic freedom. Compared to others employed by large bureaucratic organizations, professors have an unusual amount of freedom. The self-image, working conditions, and ideology of the professorate makes it difficult to control and makes change in the university problematical.

In the NICs, the transformation of the universities, and of the academic profession itself, from a mainly teaching context and from a peripheral position to a more research-oriented and central role is not easy, but the NICs do have certain advantages. The academic profession is relatively young and many of its members have been trained abroad, often in the best universities. Many natives of the NICs have taken up professorships in the industrialized countries and it is sometimes possible to lure them back as local universities change their orientation and facilities are improved. The significantly increased levels of funding that are necessary for academic improvement are also available in the NICs. The conditions of work and facilities offered to the academic profession must reflect the standard prevalent internationally. For example, it is common to see facilities improved at the same time as teaching loads remain quite high. In the industrialized countries, professors at research-oriented universities generally teach approximately six classroom-contact hours per week (or two courses per semester) with the addition, of course, of advisement of graduate students. To expect a high level of research productivity with significantly higher teaching loads is probably impractical.

The academic profession is extraordinarily complex. Historical traditions, working conditions, relations with society, issues of autonomy and academic freedom, salaries, differing subcultures, and a variety of other factors all affect the development and role of the profession. It is clear, however, that an academic

institution cannot reach its potential without a productive academic profession which is committed to institutional goals.

Students

Students are an important part of the higher education equation. Their choices of universities and of major fields help to shape the higher education system. High student demand presses for expansion of higher education. Students also constitute subcultures which have a significant impact on the university and sometimes on society. Student subcultures are varied, ranging from social and athletic groups to political organizations.[23]

In the NICs, there has been much concern with the student political activism and campus political subcultures. Students have been a potent political force in the NICs, as they have been in many Third World nations (Altbach, 1989). It is generally the case that where political regimes have widespread legitimacy in the country and where there is a significant amount of freedom of expression, student movements will not have the potential to overthrow the regime. In the Western industrialized nations, even during times of significant social unrest, such as during the Vietnam War in the United States and in the mid-1960s in Europe, student movements did not threaten the stability of the regime itself. Students may point to severe societal problems or create the atmosphere for social change, but they do not have the potential to create significant instability.

In the NICs, which do not yet have fully institutionalized democratic regimes and where at least a segment of the population does not have faith in the existing political framework, there is significant potential for instability generated by student political activism. Once there is an array of functioning and legitimate political institutions and an array of forms, such as a free press and voluntary organizations and parties, to express opinions and influence the political system, it is unlikely that student activism will play such an important role in society. Until these institutions are in place and functioning, however, students will continue to play a political role that may lead to societal instability.

While it is possible to use repression and intimidation to bring an end to a specific student political movement, it is not practical to combine permanent repression with the development of a top quality academic system. A functioning academic system requires academic freedom, an atmosphere free of repression, and a significant amount of autonomy. Constant student disruption and consequent involvement of the police or military on campus inevitably disrupts the institution and makes normal academic life impossible.

It is necessary for both academic institutions and governments to understand the nature of student political involvement, the causes and possible consequences of activism, and the implications of repressive responses to activism. Student movements seldom consider the likely results of their actions, nor do they understand the potential as well as the limitations of activism. For the newly industrializing countries, student political activism is a matter of considerable importance, not only for the university but also for the political system and society.

The University and Democracy

The university is itself not a fully democratic institution. It is, rather, a semi-democracy of the faculty since the professors make most of the decisions and the majority — the students — have only a minor role in governance or decision making. The university is also a meritocracy, with faculty appointments going to the most able and students generally admitted on the basis of their qualifications. Yet, the university plays a very important role in a democratic society. It champions free and rational debate not only on academic matters but also on issues of societal importance. In many countries, university faculty members are involved in shaping the national debate through their writings. Universities are among the few institutions in modern society that have the detachment and objectivity to pose alternatives and ask difficult questions. The academic community, almost by its very nature, is critical in the best sense of the term. It looks at the problems of society and its provides interpretations of culture and development. In many Third World countries, universities are literally creating a national identity in countries where the borders were artifacts of colonialism. The university provides an example of an institution in which rational and free debate flourishes and where ideas are valued.

The university also provides training for future elites since virtually everyone who achieves political, cultural, or economic power in most societies is a graduate of a university. Thus, not only what is learned in the classroom but also the campus environment is of considerable importance to society. The open intellectual atmosphere and the spirit of inquiry found on campus are important lessons for future elites. Further, the general attitude of the faculty also has an influence on students. The university, in some ways, is an institution that is profoundly subversive of intolerance, repression, and authoritarianism. Dictatorial rulers are correctly fearful of universities and the most repressive regimes, such as in Burma and Uganda, are in a sense right when they close the universities for extended periods. They understand that repression and an active academic atmosphere cannot mix.

In the newly industrializing countries, committed to the development of democratic institutions, universities are extraordinarily important. The universities provide the ideas that are necessary for democracy. They provide training for the future elites in an atmosphere of free inquiry and debate. They bring ideas to the wider society and often interpret trends from abroad. Universities may also be very uncomfortable institutions from the perspective of the government. They are the source of debate and sometimes of unrest. They are the training ground not only of the Establishment but also of the opposition. And they are funded by the very state authorities who are criticized on the campus. Nonetheless, academic institutions are of primary importance in building up democratic values and ideas.

Conclusion

This essay has argued that universities are institutions of extraordinary importance to the newly industrializing countries. They are not only central to educating people for increasingly complex and technologically oriented societies, they also provide the research base that will permit these societies to create ideas and translate them into usable processes and products. Academic institutions are also central to analyzing and interpreting social trends and developments. They not only provide training in technology but they are also crucial for education for democracy. The NICs have begun the process of transforming their academic institutions from a focus on teaching functions to much more complex — and expensive — universities that focus on research and knowledge dissemination as well as teaching. While not simple, this transformation will help to shape the future of the NICs because without fully developed universities these societies will be unable to compete internationally. Not only will they need a large cohort of highly trained personnel but the university's research and dissemination are central to a technological economy. Universities are complex institutions that require freedom of inquiry if they are to develop fully. At the same time, universities are also are central to a democratic society.

The university of the 21st century will not be radically different from contemporary academic institutions. After all, universities have a long historical tradition and change relatively slowly. Yet, there are some important international trends that are evident and that will affect academic institutions.

1. The great wave of expansion that characterized the post-World War II period in the industrialized nations seems to be at end. While universities may expand to meet societal and demographic needs, growth will very likely be slower. In the Third World, expansion continues, although at a somewhat slower rate. The NICs stand somewhere between.
2. For the NICs, the great transformation of higher education will be the expansion of the research role and improvement in the quality of higher education, at least at the upper levels of the academic system. The accompanying changes in values, orientations, and facilities will constitute a significant challenge.
3. The university will play a more public and instrumental role in society. The emergence of "open universities" that provide wide access to higher education is an indication of this role.
4. In the Western industrialized countries, there is a trend away from lavish public financing of higher education. A greater share of the burden of higher education is falling on individuals and families. Industries are funding an increasing proportion of research, although overall research expenditures are not expanding rapidly. This trend is having consequences in terms of limiting access to higher education for some groups in society and in weakening the research base of the universities, particularly in basic research. The NICs, at a different stage of academic development, will need to examine carefully their own needs and aspirations before they simply follow international trends.

5. As universities become more complex, sophisticated, and productive, they will also become increasingly vocal and perhaps at times controversial. Academic institutions must be given a significant degree of autonomy and freedom if they are to be truly "world class," even at the cost of occasional embarrassment of the authorities.

The university of the future will resemble the academic institution of the past and the present. However, new challenges and demands will necessitate change. The academic community as well as the society must be prepared for these changes.

NOTES

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1. See Philip G. Altbach (1980) for a perspective on student political involvement worldwide. For analysis concerning Korea, see Shinil Kim (1980, pp. 173–182).

2. Korea shows a significant variation from the norm because the very large majority of Korean students study in private institutions, and only one of the country's top five universities, Seoul National University, is a public institution. Government financial involvement will inevitably increase as research becomes more important. The Korean government, despite its relatively modest involvement in higher education, nonetheless seeks to maintain political and other controls over the academic system. Thus, financial involvement and governmental restrictions are not necessarily closely linked. Further, the government has sought to control enrolments in the private universities. The Ministry of Education maintains considerable power throughout the higher education sector.

3. For a consideration of the role of higher education in the newly industrialized countries, see Philip G. Altbach, Charles H. Davis, Thomas O. Eisemon, S. Gopinathan, H. S. Hsieh, Sungho Lee, Pang Eng Fong, and Jasbir Sarjit Singh (1989). Much of the material concerning Korea in this essay depends on Sungho Lee's essay in this volume.

4. In the Korean case, there were widespread violations of copyright, patents, and other legal controls concerning intellectual property. This situation has significantly improved with the adherence of Korea to copyright in 1987. It should also be noted that Taiwan and Singapore were also violators of copyright, trademark, and patent regulations — and China still is.

5. See Kernial Singh Sandhu and Paul Wheatley (1989). See especially Pang Eng Fong, Tan Chwee Huat, and Cheng Soo May (1989a, pp. 128–143; 1989b, pp. 201–453). See also H. E. Wilson (1978).

6. In Korea, a number of private universities were established after a land reform act in 1948. By establishing educational institutions, large landowners could retain much of their land. See Kwangho Lee (1991, p. 66).

7. It should be noted here that Soviet higher education tended to be highly specialized, thus making it difficult for graduates to rapidly shift from one position to another in the economy. This overspecialization has made the process of *perestroika* even more difficult.

8. For a perspective on the not completely successful Soviet efforts to develop research separately from the universities, see Alexander Vucinich (1984).

9. India is a good example of these conflicts and the associated fiscal dilemmas. See Andre Beteille (1990).

10. Decisions concerning which languages to use for library collections are quite serious. In practical terms, the only solution is to collect materials mainly in English, since English is not only the second language of most academics in the NICs but is also the primary language of scientific publication. Keeping abreast of journals and books in Japanese is also advisable. This means that little will be collected in other Third World languages — for example, libraries in Taiwan will not collect materials in Korean although there might be some useful publications in that language. Other important Western languages, such as French and German, will also be largely ignored.

11. The Chinese case is a very interesting one from this perspective. See Ruth Hayhoe (1989).

12. Americans had a profound impact on the early development of higher education in Korea in the late 19th century. See Sungho Lee (1989).

13. See, for example, J. N. Kaul (1975) for a discussion of the contemporary Indian university situation.

14. It is significant that the Institute of Scientific Information (ISI), headquartered in Philadelphia, uses only about 7,000 journals for its influential citation indices. These indices track the influence of published material and are considered the standard measures for scientific impact. It is also noteworthy that the ISI drastically under-represents journals that are not published in English.

15. Some of these issues are discussed in Philip G. Altbach (1988a).

16. For a perspective concerning Africa, see Thomas O. Eisemon and Charles H. Davis (1991).

17. For a discussion of these issues, see Edward Shils (1991, pp. 1–22) and Klaus Hufner (1991, pp. 47–58).

18. For a discussion of the development of the UGC, see Christine Helen Shinn (1986)

19. For a discussion of these issues in the American context, see T. R. McConnell (1991) and R. O. Berdahl (1986, pp. 39–58). See also E. D. Duryea (1986, pp. 17–38).

20. These themes are developed further in Eric Ashby (1966).

21. See Burton Clark (1987a, 1987b) for broader perspectives on the role of the professorate.

22. A "brain drain" of some of the top academics from Britain to the United States has characterized the recent period, as British salaries have lagged behind and the universities have been cut by the Thatcher government. Some of the most prominent professors have responded by taking more remunerative positions in the United States and Canada.

23. For an interesting American analysis, see Michael Moffett (1989). A classic discussion of this topic is Helen Lefkowitz Horowitz (1987). Unfortunately, the literature concerning student cultures for other countries is very limited.

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Address of author:
Comparative Education Center
Graduate School of Education
428 Christopher Baldy Hall
State University of New York at Buffalo
Buffalo, NY 14260, U.S.A.