Globalization and the University: Myths and Realities in an Unequal World

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ow will globalization affect higher education? Will globalization, the scientific community, and the Internet level the playing field in a new age of knowledge interdependence? Or will globalization produce worldwide inequality and the *McDonaldization* of the university? Is globalization responsible for all of the contemporary pressures on higher education—from "massification" to the growth of the private sector?

The answer is a qualified yes to all these questions. This essay "unpacks" the realities of and clarifies the misunderstandings about globalization and internationalization in higher education. It also highlights the disparate effects of these trends on different universities and systems. The Bologna initiatives, for example, require European Union countries to synchronize degree structures. English-speaking countries benefit from the increasing use of that language for science and scholarship. Globalization strongly affects higher education in developing countries—where the bulk of future expansion will occur.¹

Globalization poses special challenges—and responsibilities—for Americans. The United States, with the world's dominant academic system, provides

a model that other countries carefully study. Many nations adopt key American innovations—community colleges, the credit system, and doctoral study combining coursework and research, for example. The United States hosts about one-third of the world's international students, and American universities hire foreigners in large numbers. American academic thinking today influences practice in other countries tomorrow. If we divide higher education into academic centers and peripheries, the United States is by far the most important center. Teachers in American academic institutions must understand how the global system works and ensure that American academic power is not misused.

Circumstances beyond the campus and across national borders have always affected universities—a reality that is often forgotten in analyses of 21st century globalization. In turn, deep historical roots also affect the ethos and governance of universities. Of the Western institutions established by 1520, notes Clark Kerr, 85 still exist—the Roman Catholic Church, the British Parliament, several Swiss cantons, and over 70 universities. Of these enduring institutions, the universities have experienced the least change.²

Universities began as global institutions that employed Latin as a common language, enabling them to serve an international clientele of students. Professors, too, came from afar, and the knowledge they imparted reflected the entirety of scholarly learning of that period in the Western world.

All contemporary universities, except for the Al-Azhar in Cairo, stem from the medieval European university—especially the faculty-dominated University of Paris. Colonial masters imposed European university models on much of the non-Western world, and even non-colonized countries—such as Japan, Thailand, and Ethiopia—adopted the Western academic model.³ Imposition and adoption occurred even where well-established indigenous academic traditions already existed, as in China. Today, the basic institutional structure and orientation to teaching—both derived from the medieval European tradition—characterize universities internationally.

But the evolution continued; many countries creatively adapted foreign models to domestic realities. The American university amalgamates many international influences, including the original colonial model, imported from England and derived from medieval practice, the 19th century German research university, and the homegrown concept of service to society. Japan adapted German academic models and American ideas as it built its modern university system after 1868. Today, the European Union looks to "best practices" worldwide as it moves toward harmonizing national higher education systems in the "common European space." Foreign influences degree structures, and the course-credit system, for example—already helped to produce the emerging academic patterns.

Globalization, in short, does not lack precedents, at least for higher education. Universities have always balanced national realities and international trends. English now dominates as the language of research and scholarship, just as German and Latin held sway in earlier eras. Students have always traveled abroad, and scholars have always worked outside their home countries. Perhaps the main difference between now and then: globalization in the 21st century is truly worldwide in reach—few places can elude contemporary trends since modern technology enables rapid dispersion of innovations and practices.

The knowledge economy is central to 21st-century development. Higher education has assumed unprecedented importance as an educator of people

for the new economy and as a creator of new knowledge. The current debate over the General Agreement on Trade in Services (GATS)—an effort by multinational corporations and some government agencies in rich countries to integrate higher education into the legal structures of the World Trade Organization—indicates the importance of universities to a knowledge economy.

DEFINITIONS

Globalization means everything good to some observers; for others, it symbolizes the negative side of contemporary society. This essay examines the effect of globalization on the international context of higher education—how universities deal with privatization, for example—not on issues of management. Let's first define some terms.

Globalization includes the broad, largely inevitable economic, technological, political, cultural, and scientific trends that directly affect higher education. Academic systems and institutions may make different accommodations to these trends, but cannot ignore them. Globalization, as it applies to higher education, involves information technology and the use of a common language for scientific communication. It addresses mass demand for higher education (massification) and societal needs for highly educated personnel. Some examples of how globalization affects academe: changing patterns in the ownership of multinational publishing and Internet companies, the worldwide expenditure of research and development funds, and international patterns of cultural diffusion.

Internationalization includes policies and programs adopted by governments, and by academic systems and subdivisions to cope with or exploit globalization. Internationalization permits significant autonomy, initiative, and creativity in dealing with the new environment. Globalization cannot be held completely at bay, but it will not necessarily overwhelm countries or institutions, nor must the terms of the encounter be dictated from afar.⁶

American colleges and universities can use this autonomy to develop collaborative, mutually beneficial initiatives and policies, eschewing profit-making ventures that advance the hegemony of powerful academic institutions and systems. Individual academics may work with colleagues in developing countries on projects contributing to academic advancement overseas and to international awareness and understanding at home.

Multinationalization means offering one country's academic programs in other countries. This practice often involves collaboration among institutions in more than one country. Joint-degree offerings, often called "twinning," exemplify multinational academic enterprises. Institutions increasingly use the Internet to deliver these programs. Opening offshore institutions—a variant often established by franchising or by opening a branch institution—is sometimes referred to as "McDonaldization."

Universities must confront the implications of globalization; they become moribund and irrelevant when they shut themselves off from economic and societal trends. Some European universities, for example, lost relevance when they ignored the Renaissance and the Industrial Revolution. The French Revolution swept away other universities, while von Humboldt had to reinvent the German university model in 1809.8 Conversely, those arguing there is just one model for higher education in the 21st century are wrong: institutions and systems possess great latitude in dealing with globalization.

CENTERS AND PERIPHERIES IN AN UNEQUAL ENVIRONMENT

The unequal world of globalized higher education adversely affects many developing countries and smaller academic systems. Some observers see the Internet and other manifestations of globalization as bringing knowledge equality to the world, but the evidence is mixed. Globalization opens access and makes it easier for students and scholars to study and work anywhere, but it reinforces many existing inequalities and erects some new barriers. The debate over globalization in higher education mirrors general analyses. Some economists see globalization as inevitable, but argue that it works against the interests of developing countries by reinforcing international inequalities. Their critiques reveal important problems that dominant perspectives overlook.

Powerful universities always dominated the production and distribution of knowledge, including research and teaching, knowledge dissemination, and organizational patterns and directions. Weaker institutions and systems with fewer resources and lower academic standards tended to follow in their wake. Most academic centers benefit from a full array of resources possessed by larger, wealthier countries. These resources include funding, infrastructures such as libraries and laboratories for research, academic

staff with appropriate qualifications, traditions and legislation that support academic freedom, and an orientation toward high achievement levels. These top institutions use a major international language for teaching and research, and enjoy appropriate support from the state for their work.

The world of centers and peripheries grows ever more complex. ¹⁰ The leading research-oriented universities in the North—most use a key world language (particularly English)—occupy the top tier of major international academic centers. World-class universities exist elsewhere—for example, in Japan and several smaller European countries. Some universities in China, Singapore, and South Korea are approaching the status of world-class research institutions. Conversely, many peripheral institutions are found in countries at the center of the world academic system—the United States, Britain, Germany, France, and to some extent Australia and Canada.

Perhaps 100 of America's 3,200 postsecondary institutions are research universities. These institutions receive more than 80 percent of government research funds and dominate most aspects of American higher education. Other types of institutions, including comprehensive universities and community colleges, play important social and academic roles. But they produce little research and are considered less germane to the global system. Other countries possess similarly stratified academic systems. Some universities act as regional centers, providing a conduit of knowledge and links to the top institutions. The major Egyptian universities, for example, provide academic leadership for the Arabic-speaking world and channels to the major centers, but contribute relatively little research. China's key universities produce significant research for internal use, and serve as links to the wider academic world.

It is now more difficult to become a major player in international higher education—to achieve "center" status—since the price of entry has risen. 11 Top-tier research universities require vast resources because scientific research often involves a large investment in laboratory facilities and equipment. Remaining fully networked for the Internet and information technology is also costly. So are library acquisitions—including access to relevant databases. Few universities in countries lacking deep financial resources can now become top academic institutions. New institutions, regardless of location, will face even stronger obstacles.

Academic institutions at the periphery in larger nations, and the academic systems of developing and small industrialized countries depend on the centers for research, the communication of knowledge, and advanced training. The major universities—especially in the United States and the United Kingdom—host the key international research journals and databases since most academic publications are in English. Most universities focus on teaching—virtually all institutions in developing countries fit this category and must look elsewhere to obtain new knowledge and analysis. These universities lack the facilities for research, do not provide degrees beyond the bachelor's, and cannot afford current journals and databases. Structural dependency is endemic in many academic institutions.

Discussions of globalization cannot avoid confronting the deep inequalities ingrained in higher education. We now turn to specific aspects of this reality.

A NEW NEOCOLONIALISM?

Efforts of the major powers to dominate the "hearts and minds" of the world's peoples characterized the Cold War. The Soviet Union and the United States spent lavishly on student exchanges, textbook subsidies, book translations, and institution building to influence the world's academic leaders, intellectuals, and policymakers. Higher education was a key battlefield for attaining political and economic goals. The rationale, though sometimes couched in the ideological jargon of the Cold War, was often obscured by rhetoric about cooperation.

Many programs benefited the recipients—including scholarships to study abroad, high-quality text-books, and scientific equipment. Program participation, though voluntary, was difficult to decline given the scarcity of assistance. But such acceptance increased ties and promoted long-term dependence on the donor countries and institutions. Installing laboratory equipment or computers, for example, meant continued reliance on the supplier for spare parts and training.

Today, politics and ideology are subordinate to profits and market-driven policies. Multinational corporations, media conglomerates, and some leading universities are today's neo-colonists—seeking power and influence for commercial gain. Governments, wishing to maintain influence, assist companies based in their countries. Countries and universities are not

compelled to accept offers of aid or foster exchanges, but, as during the Cold War, the pressures favoring participation prevail. Involvement in science and scholarship and obtaining otherwise unavailable benefits are considerable inducements. The result stays the same—the loss of intellectual and cultural autonomy by the less powerful.

THE ROLE OF ENGLISH

English is the Latin of the 21st century. English is used to communicate knowledge worldwide, to instruct (even in countries where English is not the language of higher education), and to implement cross-border degree programs. Higher education worldwide must grapple with the consequences of the dominance of English as a factor in globalization.¹²

English, the world's most widely studied foreign language, is also the most widely used second language. Required in many countries, it is the ubiquitous second language of choice. English is the medium of most internationally circulated scientific journals; it also dominates many other academic fields. Many universities stress the importance of publishing in internationally circulated scientific journals—meaning publishing in English. Scientific and scholarly websites function predominantly in English; it is the language of academic transactions on the

The largest numbers of international students attend universities in English-speaking countriesincluding the United States, the United Kingdom, Australia, Canada, and New Zealand. Singapore, Ethiopia, and much of Anglophone Africa also use English as the primary language of instruction. English often functions as a medium of instruction in India, Pakistan, Bangladesh, and Sri Lanka. Other countries are offering more academic programs in English—to attract international students unwilling to learn the local language and to improve the English-language skills of domestic students and thus enable them to work in an international arena. English-medium universities exist in many countries—from Azerbaijan and Bulgaria to Kyrgyzstan and Malaysia. Universities offer English-medium degree programs and courses at local universities in Japan, the Netherlands, Germany, and Mexico. Many European Union nations offer study in English to attract students from elsewhere in the EU. English is a ubiquitous language in higher education worldwide.

What does this ubiquity mean for globalization? The role of English affects higher education policy and the work of individual students and scholars. In many ways, the place of English at the pinnacle of scientific communication gives a significant advantage to the United States and the United Kingdom and to the other wealthy English-speaking countries. As the country with the world's largest academic system and as the most important user of English, the United States has a double advantage. For example, not surprisingly, many scientific journals are edited in the United States. This gives an advantage to American authors-not only are they writing in their mother tongue but the peer review system is dominated by people accustomed to both the language and methodology of U.S. scholars. Others must communicate in a foreign language and conform to unfamiliar academic norms. As mentioned earlier, in many places academics are pressured to publish in internationally circulated journals—the sense being that publication in the "best" scientific journals is a necessary validation of academic work. Increasingly, international and regional scientific meetings are exclusively in English, again placing a premium on fluency in the language.

Many English-language products dominate the international academic marketplace. Textbooks written from a U.S. or U.K. perspective are sold worldwide, influencing students and academics in many countries and profiting publishers who communicate in English. English-language disciplinary databases dominate the international market. These resources are priced to sell to American or European buyers and are thus extraordinarily expensive to users in developing or middle-income countries. English-language programs and testing materials find a ready market in these countries, despite the costs.

Countries using "small languages" may be tempted to change the medium of instruction at their universities to English. In the Netherlands, where degree programs in English flourish, Dutch was retained as the main language of instruction out of concern for its long-term survival. Singapore, a multi-lingual nation with Chinese as the mother tongue of the majority of the population, uses English as the sole medium of instruction. English—not the native language—is almost always the language of instruction for collaborative degree programs in many nations including Malaysia.

English has largely supplanted French, German, and Spanish as the international medium of scholarship, though these languages are in no danger of disappearing in higher education. Users of English are oriented to the main English-speaking academic systems, thereby further increasing their influence. English will therefore remain the predominant academic language for the foreseeable future.

THE GLOBAL MARKETPLACE FOR STUDENTS AND SCHOLARS

More than 1.5 million students study abroad at any one time—the largest proportion of the world's students since the medieval period. Some observers estimate that by 2020 perhaps eight million scholars will travel abroad temporarily or migrate for academic work. The global marketplace expands as academic systems become similar, academic degrees become more widely accepted internationally, immigration rules are tailored to people with high skill levels, and universities hire the best talent worldwide.

Academic talent largely flows from South to North—from the developing countries to the large metropolitan academic systems. Perhaps 80 percent of the world's international students move north from developing countries to pursue master's, doctoral, and professional degrees, and many students do not return. About 80 percent of students from China and India-two of the largest countries that send students to the United States—take jobs in the U.S. after obtaining their degrees. The collapse of the Soviet system produced an exodus of scientists from Russia to Western Europe and North America. In contrast, students from industrialized nations who study in a foreign country wish to broaden their horizons, learn a language, or gain knowledge they could not acquire at home; few earn degrees.

Most international students pay for their own education. The estimated \$13 billion coming to the U.S. economy each year is a significant revenue source and an economic drain on the developing world. The money spent abroad by students from some developing countries, by some estimates, is greater than incoming foreign aid. Foreign students acquire training in their fields while absorbing the norms and values of the international academic culture. Students who do return home often desire to transform their universities in unrealistic, irrelevant, and unattainable ways.

Numerous visiting scholars from developing countries accept temporary teaching or research positions in the North. In 2002, US universities hosted more

than 82,000 visiting scholars; the worldwide estimate is 200,000. ¹³ The predominant South-North flow notwithstanding, there is a significant movement of academics among the industrialized countries and to some extent within other regions, such as Latin America. Most visiting scholars return home, but some use their assignments as springboards to permanent emigration.

Many more academics migrate—again, predominantly from South to North—to take jobs in the countries in which they have obtained their degrees. Other international students compete for positions abroad from home. This migration substantially weakens the academic institutions in many developing countries, especially in Africa. More Ethiopian holders of doctoral degrees work outside of Ethiopia than at home, for example, and 30 percent of all highly educated Ghanaians and Sierra Leoneans live and work abroad. South Africa loses many of its most talented academics to the North, while it simultaneously recruits from elsewhere in Africa.

Migration is not limited to developing countries. Academics will take jobs in countries with more attractive opportunities, salaries, and working conditions. Migration levels are especially high in the sciences, engineering, information technology, and management. Low salaries and deteriorating working conditions in the U.K. produce an ongoing small but significant exodus to the U.S. and Canada. In response, U.K. authorities offer financial enticements to keep their best professors at home. The metropoles sometimes lure scholars from small but wellendowed academic systems, such as Denmark or Finland, by the prospects of research centrality and of access to the latest scientific equipment. The high percentage of professors in U.S. universities from other countries working in engineering and computer science reflects the increase of foreign doctoral enrollments in these fields to almost half the total. Academic migration occurs at all levels of the academic system. High salaries at top universities attract some world-famous scholars, while far more modest salaries lure foreigners to positions that are unappealing to local applicants.

Academic migration follows complex routes. Many Egyptian, Jordanian, and Palestinian academics work at Arabian Gulf universities. Southeast Asia and the Gulf attract Indians and Pakistanis. Singapore and Hong Kong recruit academics worldwide. Mexico and Brazil employ scholars from elsewhere in Latin

America. South Africa, Namibia, and Botswana recruit other Africans. Some of the best Russian and Central European scholars and scientists have moved to Western Europe and North America. Traffic among European Union member states will grow significantly as the EU harmonizes academic systems.

No one should underestimate the significance of "pull" factors—salaries, working conditions, and the lure of scientific and scholarly centrality. 15 The discrepancies in salaries and conditions between North and South mean that in most developing countries academics cannot aspire to live in a middle-class lifestyle or expect to have access to the necessary tools of research and scholarship—including the ability to obtain the most current knowledge and to connect with the international community of scholars. "Push" factors add to the incentive to migrate: limited academic freedom subjects scholars to restrictions and even arrest. Favoritism and corruption in academic appointments and promotions erode the attractiveness of some university posts. Some nations offer no job security or stability. The "pull" factors at the centers cannot be altered much since conditions at Third World universities stem from the scarcity of resources and the pressure of increased student numbers on overburdened academic institutions and systems. Developing countries can moderate the "push" factors, though reforms will not end the migration of academic talent in a globalized environment.

The talent migration was once called a brain drain because departing scholars retained few, if any, academic links with their home countries. This situation has changed. Today, migrating academics retain contact with their country of origin via the Internet, often returning home to lecture, consult, collaborate on research, or to accept visiting professorships. Countries with well-developed academic systems, such as China, India, and South Africa, accept these links as appropriate and useful. Some academics with careers abroad—notably scholars from South Korea and Taiwan—accept senior academic appointments in their home countries as academic working conditions, salaries, and respect for academic freedom improve.

Industrialized countries benefit from the large pool of scientists and scholars from developing countries who bring their skills to the highest bidder. The developing world thereby helps the North maintain its overwhelming lead in science and scholarship. Immigration policies in some industrialized countries encourage talented personnel to migrate and establish

residency. Many academic institutions make it easy for foreigners to fit into the career structure; conversely, countries, such as Japan, suffer by restricting foreign participation.

The United States—a traditional recipient of talent from around the world—remains by far its largest beneficiary. Academic salaries are relatively high, and the immigration system permits foreigners to work in the U.S., though access to the country became more difficult after September 11. The number of visiting scholars declined in 2003 for the first time in many years. Renewed links between migrating academics and their countries of origin mitigates this inequity, but developing countries and smaller, more peripheral nations worldwide remain at a disadvantage in the global academic labor market.

THE INTERNATIONALIZATION OF THE CURRICULUM

The field of business and management studies illustrates the global dominance of ideas from major English-speaking academic systems. Business administration was established over the past several decades in most countries to prepare professionals for work in multinational corporations or in firms engaged in international commerce. The dominant pattern of professional studies is the American-style M.B.A. degree, which originally prepared Americans for work in U.S. business. The case study, an American innovation that facilitated instruction in American business practices, is a key curricular component of many M.B.A. programs. Many local institutions adopted the M.B.A. model; so did American academic institutions working with local partners or setting up their own campuses overseas. Some M.B.A. programs are modified to accommodate the local context, but the basic curriculum and degree structure remains American.

Some countries may soon include general education in the first-degree curriculum. Part of the U.S. undergraduate curriculum for centuries, general education provides a broad background in the disciplines along with skills in critical thinking. A recent influential report, sponsored by the World Bank and UNESCO, recommends general education as an alternative to existing largely specialized curricula.¹⁸

Increasing international use of common textbooks, course materials, and syllabi is stimulated by multinational publishers, the Internet and databases, and by the growing cadre of professors who return home

with ideas for producing curricular and instructional materials. Most instructional materials originate in the United States, the United Kingdom, and France. Examining the databases used and the patterns of language translations reveals a similar pattern.

Disciplines and fields vary in their global homogeneity. The major academic centers dominate business studies, information technology, and biotechnology. Other fields—such as history, language studies, and the humanities—are largely nationally based, though foreign influences affect methodology and approaches to research and interpretation. The internationalization of the curriculum, like other aspects of globalization, proceeds largely from North to South.

THE MULTINATIONALIZATION OF HIGHER EDUCATION

The existence of a global higher education marketplace is manifested in many multinational initiatives—ranging from "twinning" programs linking academic institutions or programs in two countries to opening branch campuses in other countries. Many cross-border higher education ventures deliver their programs via the Internet. Both for-profit companies and traditional institutions have invested in these multinational educational initiatives.

The multinationalization of higher education has historical roots. Universities in the metropole frequently set up branch institutions or sponsored new schools in their colonies. Some examples: the British in Africa and Asia, Dutch institutions in what is now Indonesia, and French initiatives in Africa and Asia. Roman Catholic universities set up new institutions in Latin America and the Philippines; the Jesuits were especially active. In the 19th century, American Protestant missionaries set up universities based on the U.S. model in Lebanon (the American University of Beirut), Egypt, and Turkey. Some indigenous groups opened institutions based on foreign models, often directly linked to universities in the metropole.¹⁹

The export of academic institutions is a growing, but not a new phenomenon. Both traditional colonialism and the government-sponsored foreign assistance programs of the Cold War era exported institutional models, practices, and curriculum from the metropole to developing countries. Relations between educational institutions traditionally represented a union of unequals. The academic models, curricula, and programs from the more powerful

academic outside institution almost always dominated the local partner. Alternatively, the new institution was based on foreign ideas and non-indigenous values. These disparities persist; rarely, if ever, do academic innovations emanate from the periphery to the center. Thus, Australian institutions designed new academic institutions in Malaysia and dictated the terms of subsequent linkages.

The past decade has witnessed increased institutional exports by non-governmental entities in the exporting country. American colleges and universities saw a market in Japan in the 1980s, for example—an unusual dyad since both countries were industrialized. Several hundred U.S. institutions explored the Japanese "market," and over a dozen established campuses, usually in cooperation with a Japanese institution or company.²⁰ A few Japanese institutions explored the feasibility of a U.S. connection; some set up branch campuses. But most of these programs brought Japanese students to the United States for study, while U.S. programs in Japan targeted Japanese students. The exporting institutions were not the most prestigious schools on either side. By 2000, few branches still operated. Colleges faced overwhelming difficulty in obtaining certification for U.S. programs from the Japanese Ministry of Education, while the protracted Japanese economic slowdown affected initiatives on both sides.

A few prestigious American universities have established campuses abroad, usually in popular professional fields such as business administration. The Spanish campus of the University of Chicago business school, for example, offers Chicago degrees to European students. The school uses the standard Chicago curriculum—taught mostly by Chicago faculty members with an international focus and includes a period of study at the home campus. The Singapore government provides incentives for prestigious, carefully selected foreign universities—such as the University of Pennsylvania's Wharton School and the Paris-based INSEAD management school—to open new programs. U.S.-sponsored universities have been established in Kyrgyzstan, Sharjah, Armenia, and Bulgaria. These schools typically originate through local initiative, but are generally supervised by the U.S. partners and accredited in the United States. The language of instruction is English and the curriculum is U.S. based.

Conforming to the standard export model, a university in an industrialized country will set up a program abroad at the invitation of a host—a corporation,

an educational institution, or a combination of the two. Malaysia features many arrangements set up to satisfy unmet local demand; Australian and U.K. universities are most active in that country. The new programs generated many complaints of low quality, poor supervision, or inadequate communication between the providers and the hosts. Some small American colleges and universities—some of lesser quality—offered degree programs when the Israeli government opened up the market. Vocal criticisms forced restrictions on the programs; many have closed.

Foreign academic degree programs are sometimes "franchised." The foreign university lends its name and curriculum to a local academic institution or business firm, but provides limited supervision and quality control. The new institution may grant a degree of the foreign institution to local students. These franchising arrangements have led to many abuses. The British press frequently charges that U.K. institutions, mostly the less prestigious ones, involved in overseas programs are damaging the "good name" of British higher education. Meanwhile, fee-paying overseas students think that they've received a standard British education, when in reality these "buyers" do not receive the same level of education provided in the United Kingdom.

The many "twinning" programs worldwide link an academic institution in one country with a partner school in another country. The links are typically between North and South; the university in the North provides the basic curriculum and orientation. Academic degrees are often jointly awarded. Obtaining the stamp of approval of a foreign university helps "twinned" institutions in the South develop new curricular offerings.

The multinationalization of higher education features some common perspectives and motivations. Most stakeholders, especially in the North, aim to earn a profit. Participating institutions in the South also wish to meet the growing demand for access to higher education and to provide otherwise unavailable degree programs. Most multinational arrangements are marked by the same inequality that characterizes other aspects of globalization.

INFORMATION TECHNOLOGY AND GLOBALIZATION

The information age will significantly change higher education. No, information technology will alter not the basic functions of traditional academic institutions, but IT, especially the Internet, affects the way scholars communicate, store, and retrieve knowledge. IT is the ultimate form of globalization—it makes knowledge instantaneously available worldwide. Libraries, once the repositories of books and journals, now provide access to a range of IT-based products, including databases and websites. Scholars depend on the Internet to conduct and disseminate research and analysis. Academic institutions use IT to deliver curricula to students within their countries and internationally. IT now shapes teaching, learning, and even the management of academic institutions.

As with the other aspects of globalization, significant inequalities exist in access and use of IT. The information and knowledge base available through the Internet inevitably reflects the realities of the knowledge system worldwide. The Internet does simplify information retrieval for scholars at universities lacking good libraries—a change that helps democratize scientific communication and access to information. But electronically sophisticated scientific systems provide advanced industrialized countries better access to the Internet's databases and retrieval mechanisms than the less networked academic communities of the developing countries.²³ Africa, for example, has only recently achieved full connectivity to the Internet.

Disparities affecting access and use of information also arise from the extensive use of English on the Internet, its dominance by major universities in the North, and the acquisition of many databases and journals by multinational knowledge corporations. Academic institutions and countries unable to pay for access to these information sources cannot participate fully in the networking. Tightened copyright and other ownership restrictions through international treaties and regulations further consolidate ownership and limit access. ²⁴

IT has also greatly expanded the reach and methodological sophistication of distance education. Distance education is not a new phenomenon—the University of South Africa, for example, has offered academic degrees through correspondence for many decades, while the Open University in the United Kingdom combines distance methods to deliver its highly regarded programs. But universities and other providers in the industrialized nations now employ IT to offer degree and certificate programs in fields such as business administration worldwide, especially

to developing countries. Many providers of distance education—including for-profit corporations such as Sylvan Learning Systems, and major multinational publishers—see the international market as critical for the success of their programs. Microsoft and Motorola are two other large corporations that offer competency certificates in their fields of expertise.

Some indicators of the worldwide effect of IT: developing countries house seven of the world's ten largest distance education institutions (all ten use IT for at least part of their programs). Several African nations created the innovative African Virtual University to harness the Internet to their needs. Scientists and scholars in the developing world widely use e-mail to improve communication and create networks. The information revolution, while not a panacea, plays a salutary role in developing countries.

INTERNATIONAL AGREEMENTS AND FRAMEWORKS

Globalization requires international agreements and arrangements that manage interactions between participants. These arrangements range from bilateral agreements relating to student and faculty exchanges—the many bi-national commissions governing the American Fulbright programs, for example—to the mutual recognition of degrees. The Bologna framework is the most comprehensive set of international academic agreements; these agreements harmonize all European Union higher education systems while fostering specific exchange and scholarship programs such as ERASMUS and SOCRATES. NAFTA, the North American Free Trade Agreement, in contrast, has few implications for higher education.

Should the GATS proposal include higher education in particular and the knowledge industries in general within the framework of the World Trade Organization? GATS seeks to establish "open markets" for knowledge products of all kinds—including higher education. GATS, though not yet fully formulated and not currently part of the WTO framework, presumes that knowledge is a commodity like any other and should be freely traded around the world. Free trade, argue proponents, benefits everyone by permitting competition in the marketplace of ideas and knowledge products.

GATS proponents also seek to provide a legally binding framework for circulating educational services and for protecting intellectual property. Thus, GATS and the WTO are related to TRIPS (Trade Related Intellectual Property) arrangements and copyright regulations. These regulatory frameworks aim to rationalize the global trade in knowledge and to ensure open markets and protections for the owners of knowledge products. The WTO agreements and international copyright are international treaties, having the force of law, that protect the sellers and the providers, not the buyers and users. As a result the agreements have negative implications for developing countries.²⁵ Strengthened copyright laws, for example, protect the owners of knowledge, but lack both "fair use" provisions that open access to information and meaningful special arrangements for developing countries.

GATS proponents include multinational knowledge companies, and governments focusing on exports.²⁶ Testing companies such as the U.S.-based Educational Testing Service, publishers, IT and computer firms, and for-profit educational providers, also see GATS as beneficial. Government departments concerned with trade and export promotion, not the ministries of education, are often most focused on GATS. The Department of Commerce, not the Department of Education, took the lead in the U.S. The Department of Trade and Industry has been in the forefront in the U.K. Education groups in the United States and Canada have questioned or opposed the GATS proposal. The American Council on Education, which represents most university presidents in the United States, opposes GATS. Most developing countries have not taken a position on free trade in education and knowledge products.

Is education a tradable commodity, to be regulated like automobiles or bananas? "I'm skeptical as to whether bringing educational issues under the auspices of trade negotiations would be helpful," notes Lawrence Summers, the former U.S. treasury secretary and current president of Harvard University. "To start with, many educational institutions are nonprofit, their motivations are different from the motivations of commercial firms that we think of in a trade context." He adds: "There may be some egregious practices that should be addressed, but I would be skeptical about treating education in a way that had any parallels with financial services, with insurance, or with foreign investments." 27

GATS would bring developing countries into a global framework of commerce and exchange in higher education at the cost of reduced autonomy in educational decision-making. Extending the principle of free trade to education would allow universities, testing companies, and providers of distance education from the industrialized world to count, in principle, on having access to desirable markets in signatory developing countries. Regulating or controlling these entities is difficult if not impossible. GATS would not help developing countries promote exports of educational products or institutions; these countries are importers, not exporters. Instead, developing countries would be at the mercy of the multinational providers.

Current arrangements provide that all countries retain authority over educational imports and exports, subject to some regulatory arrangement such as international copyright, and patent treaties. But these arrangements already permit much international higher education exchange. Additional regulations are not needed. Many entities are already pursuing cross-border educational transactions. The rule for developing countries is already caveat emptor.

CONCLUSION

Globalization in higher education and science is inevitable. Academe has always been international in scope, but modern technology, the Internet, the increasing ease of communication, and the flow of students and highly educated personnel across borders accelerate the process. No academic system can exist by itself in the world of the 21st century.

The challenge is to recognize the complexities and nuances of the modern context and then seek to create a global academic environment that recognizes the need to ensure that academic relationships are as equal as possible. Recognizing that inequalities continue to characterize higher education is a first step. The second step is to create a world that ameliorates these inequalities. These tasks, given the marketization and massification of higher education, are not easy. But globalization must not turn into the neocolonialism of the 21st century.

Academic globalization poses special challenges for Americans. The size, wealth, power, and research productivity of the U.S. higher education system creates the possibility of hegemony over knowledge and communication. Americans must shun this prospect in favor of maintaining a sense of the international public good, and helping to develop a strong worldwide academic culture.

NOTES

- ¹ Task Force on Higher Education, 2000.
- ² Kerr, 2001, 115.
- ³ Altbach and Selvaratnam, 1989.
- ⁴ Altbach, 1998a.
- ⁵ Larsen, Martin & Morris, 2002; Knight, 2002; Altbach, 2002.
- ⁶ Knight, 1997; Scott, 1998; De Wit, 2002.
- ⁷ Hayes and Wynyard, 2002.
- ⁸ Ben-David and Zloczower, 1962.
- ⁹ Stiglitz, 2002; Rodrik, 1997; Rodrik, 1999.
- 10 Altbach, 1998c.
- ¹¹ Altbach, 1998b.
- 12 Crystal, 1997.
- 13 Koh Chin, 2003.
- 14 Outward Bound, 2002, 24.
- 15 Altbach, 2003.
- 16 Choi, 1995.
- 17 Altbach 2004.
- ¹⁸ Task Force on Higher Education, 2000.
- ¹⁹ Ashby, 1964.
- ²⁰ Chambers and Cummings, 1990.
- ²¹ Castells, 2000.
- ²² Hawkins & Battin, 1998.
- ²³ Teferra, 2003.
- ²⁴ Correa, 2000.
- ²⁵ Raikhy, 2002.
- ²⁶ OECD, 2002.
- ²⁷ "The World According to Larry," 2002, 38.

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