ests. More market-susceptible institutions would need to consider eliminating non-self-supporting departments, increasing activities that generate revenues, and outsourcing or eliminating altogether campus resources that might be provided by others at less cost. These ongoing trends—already happening at some level—could be exacerbated by free trade. These institutions would seek competitive advantages and eliminate all activities that negatively affected the bottom line.

The wealthier institutions, those which could afford to maintain departments that are not self-supporting, would become the study centers for all cash-poor subjects (e.g., classics, music theory, or comparative literature, etc.), resulting in an elitism among academic fields. The liberal arts would become an educational luxury. Only those meeting the admissions standards at the most elite institutions would have the privilege of studying in these fields, and only the privileged students would have the resources to commit to such studies.

Another potential academic scenario involves entire fields of study becoming transformed due to international enrollments.

Segregation among Disciplines

Finally, another potential academic scenario involves entire fields of study becoming transformed due to international enrollments. Science and engineering already face intense enrollment pressures, as American students do not seek advanced degrees in the numbers needed to fill classrooms and laboratories at institutions across the country. In many cases, domestic students with less impressive credentials are currently admitted to programs over qualified international students—to ensure some American enrollees. Under an absolute free-trade model, such protectionist admissions policies would be illegal, and all applicants would have to be considered in the same way.

One could predict, then, a rapid increase in East and South Asian students, for instance, in graduate programs in computer science and engineering, which are vital for U.S. national security and economic development. It is not unimaginable that free trade could actually lead to diminished capacities to compete in business (say, in high-tech fields) and pose a real threat to national security—not due to the presence of foreign students, which is already an issue, but because few if any domestic students would be qualified and eligible for employment in classified areas and fields. With burgeoning high-tech sectors across Asia, for example, it is reasonable to expect that more foreign students in these fields would return to their home countries, where they would not face stringent U.S. immigration restrictions and where their entrepreneurial opportunities would likely be greater than in the United States. Exporting economically vital areas of expertise could, in fact, threaten national security and further disadvantage the U.S. economy by moving the forefront of technological and scientific innovation overseas.

The Worst-Case Scenario

These examples within this worst-case scenario are extreme, of course, but they ought to stimulate debate about the potential ramifications of unfettered free trade in higher education services and the ongoing skepticism worldwide over the promise of free trade for higher education. Assuming that higher education is a service industry—a hotly contested idea, given the social and cultural significance of higher education—the extent to which the sector ought to be subjected to the free market requires an informed, inclusive process, which is not in place today.

For the United States, in particular, formulating comprehensive trade policies that impact the massive, decentralized, states-centered system of higher education should involve input from actors at all levels—from the campuses to representative organizations to government agencies. Thus far, however, protrade advocates have dominated the discussion, with more mainstream higher education stakeholders valiantly trying to catch up. Maybe the shock of these potential repercussions will provoke greater involvement across all segments of American higher education, leading to more inclusive debate about free trade and its implications for higher education here and around the world. Without greater interest and broader input in this debate, these worst-case possibilities could become worst-case inevitabilities. ■

GATS and Higher Education's Role in Development

Olve Sørensen

Olve Sørensen is a senior adviser in the Department of Higher Education in the Norwegian Ministry of Education, with particular responsibility for GATS and other aspects of international trade in education services. Address: Royal Norwegian Ministry of Education and Research, P.O. Box 8119 Dep, 0032 Oslo, Norway. E-mail: olve.sorensen@ufd.dep.no.

The GATS treaty includes specific commitments to ensure that the liberalization of trade in services benefits developing countries and enhances global development. Some developing countries interpret these provisions as an exemption from most of the hard bits of GATS obligations, while trade hard-liners see them more as lofty expressions of goodwill not to be taken as binding in any real sense.

For a rich country, traditionally committed to both global trade and the interests of less-developed countries, it can be a challenge to balance the two objectives in a GATS context. Education represents a particularly sensitive area because of its pivotal role in development. How should a country act to fulfill its obligations to the global development of education for the benefit of all? An interesting case entered the public eye last year when South Africa took some developed countries to task

for what it saw as aggressive behavior over education under GATS.

Basic GATS Negotiations

After setting out their initial positions, countries negotiate in the GATS setting by requesting from one another improved market access in sectors of interest. Remember that any concession given to one country must apply as well to any other country wishing to trade—national preferences toward individual trading partners are outlawed by the Most-Favored Nation rule, one of the cornerstones of GATS. Also, keep in mind that a request is made and granted or rejected without any quid pro quo; a country may request increased market access for education services from others without opening its own market.

The South African Offensive

Since relatively few countries have engaged in the request-and-offer process regarding the education sector and since the secrecy of the negotiations has generally been observed, it attracted considerable interest when the then South African minister of education, Professor Kader Asmal, attacked several countries for making negotiation requests to South Africa. He specifically targeted Norway, as a country that presented itself as committed to the welfare of countries in the South yet was acting in the GATS process as a market aggressor.

South Africa openly broke the explicit rule in GATS protocol that no country make public the requests it received from others.

Norwegian Reactions

Several factors contributed to making this attack a disturbing episode for the Norwegians. First, South Africa openly broke the explicit rule in GATS protocol that no country make public the requests it received from others. Each country is free to publicize its own requests but in practice most choose not to do so.

Second, the South African hostility to the action of launching a request seemed to question the legitimacy of the whole intricate scheme of negotiations, the courtly dance of advance-and-retreat and offense-and-defense, through which the GATS process is designed to liberalize world trade. Public accusations of the exchange of offers and counteroffers as acts of aggression may result in wariness that could lead to a complete standstill in the process.

Third, this episode demonstrated that public opinion will quickly swing behind anyone able to appear as a victim of GATS. The complexity of the issues together with the moral high ground of South Africa's status as spokesman for the plight of less-developed countries provoked widespread outrage within and outside Norway. The responsible authorities, whose explanations were drowned out by the emotional outbursts and have yet to make much of a dent in the widely reported simplified version.

Finally, the Norwegian response gave mixed signals. The camp that supports development expressed dismay and apologies; the requests to South Africa in the education sector were described as an unfortunate accident. In its wake, the episode is mostly portrayed as a full retreat by Norway and a retraction of the request. In reality, the minister of foreign affairs answered a question in Parliament by saying the requests had been made but if South Africa chose not to accede to them there would be no further follow-up or pressure from the Norwegian side. In other words, the requests still stand but nothing more is likely to happen—which is exactly the status of many requests made under the GATS regime.

Norway's involvement is also based on the idea that remaining passive in GATS would allow a few influential countries with special interests in trade in education services to shape the framework of the future global education system.

The Norwegian Rationale

Norway's decision to play an active role in the GATS negotiations on education grew out of a number of convictions, one of which was the rationale that GATS would benefit trade in education, which in turn would support the global effort to provide education for the millions in Third World countries that lack adequate capacity to provide education services.

Norway's involvement is also based on the idea that remaining passive in GATS would allow a few influential countries with special interests in trade in education services to shape the framework of the future global education system. The belief that many countries should participate in the process led to a strategy of requesting extended market access in a number of countries, including some of the stronger developing countries. While realizing that these countries would most likely not comply fully with the requests, Norway views the negotiations as a way to involve developing countries in these development issues.

South Africa's Position

South Africa chose, however, to interpret the requests as an opening for commercial ventures in the South African market. Leading intellectuals, Kader Asmal among them, have claimed that merely placing education under the GATS umbrella is tantamount to supporting the commodification of education and undermining the status of education as a public good and a human right. In this light they aggressively portray the requests and any other initiatives to involve South Africa in GATS as a strategy to force developing countries to bare their throats to the onslaught of unbridled market forces in the education sector.

Aftermath

The disagreement, however, has left no lasting scars on either side—in fact, collaboration in education between Norway and South Africa is thriving. Still, the episode highlights the shortage of well-defined objectives for the benevolent development of a framework for transborder trade in education. Even with the best intentions, actions within the GATS system are open to sinister interpretations in the absence of a common understanding of the interests of developing countries.

This confrontation perhaps also illustrates the dangers of the basic lack of transparency in GATS. As suspicions grow, sudden revelations are apt to be misinterpreted and misjudged. These conditions call for a serious analysis of the issues in the wider community and the gradual development of a blueprint for the benevolent regulation of trade in education. ■

From Graduate Student to World Citizen in a Global Environment

Maresi Nerad

Maresi Nerad is professor of higher education and director of the Center for Innovation and Research in Graduate Education at the University of Washington. Address: CIRGE, M204 Miller Hall, University of Washington, Seattle, WA 98105, USA. E-mail: mnerad@u.washington.edu.

As globalization advances, societies become more dependent on information and knowledge. Knowledge societies rely on the production of knowledge, its transmission through education and training, and dissemination through communications technologies. Universities are placed in a unique position since they play a significant role in the production of new knowledge and training of future leaders. This applies particularly to doctoral education.

Responding to the competitive pressures of globalization, several countries have introduced and implemented innovative structures for the training of doctoral students. Examples of these new structures include the German *Graduiertenkolleges*; the Australian Cooperative Research Centre Training programs; and the National Science Foundation's (NSF's) Integrated Graduate Education and Research Trainee Programs (IGERTs). The new structures often share many characteristics: They are often problem- and theme-based, rather than disciplinary in orientation; engage in multidisciplinary research connected to the outside world; provide professional socialization through multiple mentoring; offer professional skills training in such areas as making presentations, teaching, publishing, and grant-writing skills; introduce teamwork as a required component of the program; and include international components and collaborations.

Evaluating Ph.D. Programs

One way to envision the prospects of Ph.D.s in the future is to consider whether existing programs are suitable for a knowledge-based society and to evaluate the emerging forms of doctoral education. The Center for Innovation and Research in Graduate Education (CIRGE) at the University of Washington is establishing an empirical base for assessing both existing doctoral programs and innovative ones, through studies of Ph.D. recipients. CIRGE is also directing efforts to evaluate U.S. NSF-funded innovative doctoral programs—the IGERT programs. The evaluation focuses on whether the programs are appropriate for the demands of the new economy and address the issues that have been at the forefront of current debates about graduate education since the 1990s.

One way to envision the prospects of Ph.D.s in the future is to consider whether existing programs are suitable for a knowledge-based society and to evaluate the emerging forms of doctoral education.

Doctoral Education in the 21st Century

After a decade of doctoral education outcome studies and the results of research-based IGERT evaluation, CIRGE findings showed that Ph.D. holders were satisfied with multiple mentors, the interdisciplinary approach to problem solving, the richness of the multidisciplinary research environment, and the opportunity to study with a cohort of peers from various disciplines.

Based on CIRGE studies and evaluations, we make the following recommendation for future-oriented doctoral education. Such programs should have the following characteristics:

1. They will prepare Ph.D. students to work in interdisciplinary groups by providing epistemology courses that focus on the nature of knowledge, its foundation, and validity. As most scientific, technical, or social problems become too complex to be solved by individuals or from a single perspective, research needs to be approached from a multidisciplinary perspective.

2. Future-oriented doctoral programs can integrate professional skill building into doctoral education by providing students with the experience of teaching, presenting research findings before a diverse audience, writing and publishing—in short, preparing doctoral students for a variety of future careers.

3. These programs introduce collective supervision. The demand that one person perform all functions as an ideal mentor is unrealistic and contributes to faculty burnout. A panel of advisers can provide students with more advice, insight, and consistent guidance.

4. These programs introduce effective teamwork and provide opportunities for collaboration on small research projects or coauthoring of articles by students or by students and faculty.