# TRENDS IN GLOBAL HIGHER EDUCATION

**DIRECTORY**

**CETYS UNIVERSITY SYSTEM**

*Dr. Fernando León García*
**President**

*Dr. Esther E. Mulnix*
**Academic Vicepresident**

*C.P. Arturo Álvarez Soto*
**Administrative Vicepresident**

*Dr. Alberto Gárate Rivera*
**Editorial Program Coordinator**

*CETYS Universidad is a non-profit Institution sponsored by the* IENAC

# Trends in Global Higher Education

Celestino Fernández
Jessie K. Finch
Marlene Ross
Fernándo León García
Alberto Gárate Rivera


Sistema CETYS Universidad

LA
421.83
T74
2012

Trends in global higher education / Celestino Fernández ... [et. al] . —
Mexicali, B.C. : CETYS, 2012
184 p. ; 21 cm.

Incluye referencias bibliográficas e índice

ISBN : 968 607 608 004 7

1. Educación y globalización – México. 2. Educación superior – México – 3. Centro de Enseñanza Técnica y Superior – Universidades - México.
I. Fernández, Celestino. II. Ross, Marlene. III. León García, Fernando. IV. Finch, Jessie K. V. Gárate Rivera, Alberto.

130912/RmR/del

*Trends in Global Higher Education*

D.R. © 2012, Centro de Enseñanza Técnica y Superior

Calz. CETYS s/n, Col. Rivera
Mexicali, B. C., México, C. P. 21259
www.cetys.mx

ISBN: 978-607-608-004-7

Inycre Diseño & Editorial
Translation (Foreword and Chapter III): Liliana Sánchez
Proofreading and editorial design: Néstor de J. Robles Gutiérrez
Cover design: María Elena Aguilar

*Printed in Mexico / Impreso en México*

# Table of Contents

# Foreword

*Francisco Marmolejo*

A review of the current thinking on higher education reveals that there is much research and analysis yet to be done. Part of the reason for this is the reality of the university as a living entity that recreates itself day by day, and because it is more or less successful to the extent that it manages not only to interpret the current context from a comprehensive and historic perspective, but also it has the capacity to anticipate the future and, therefore, assume a more prominent role in the society in which it is embedded, and serve its social function with greater assertiveness and responsibility.

That is why celebrations as significant as the 50th anniversary of the founding of CETYS University are unique occasions to reflect on the changing role of the university in today's society. While in this half century the essence of the work of the university has not changed significantly, the environment, both regional and global, has undergone a radical transformation. So, what is the role that the university must assume in the face of further and greater changes? Is the precept to isolate the university from its external context still valid so that it can better exercise its capacity to observe and analyze such context from an outside perspective

more objectively and critically? How is the university both a victim and contributor of social inequity and economic disparities that afflict today's world? Will the university remain a quintessential entity in which the community sets its expectations for a better world? How will the university have to reinvent itself if it wishes to remain relevant in the future? These, among others are questions we should be concerned about. Thanks to the stimulating and enriching dialogue generated during the 50th Anniversary celebrations of the founding of CETYS, such reflection was possible and it is summarized in this publication.

It is clear that today's university has a growing importance in a global and regional context in which, paradoxically, there is simultaneously a regrettable crisis of credibility within our societies regarding its institutions. In general, the university has not only avoided such social skepticism, but has become in many cases a guarantor of civility and credibility, as well as a bastion of hope and an object of social and individual aspirations. In such a complex and changing environment, societies increasingly find in the university a facilitator of individual development, and of the collective economic and social development in regional and international areas. From that perspective, the university maintains a privileged position relative to other social institutions that are not held in such high esteem. It is still viewed as the premier location where future citizens are being prepared, and also as an entity generating an atmosphere of civility and dialogue, promoting welfare as well as being the cradle of innovation and progress.

There is no doubt that, in this sense, the position of the university is unique and enviable. Opinion surveys in various countries tend to give the university one of the highest ratings, over government agencies, political parties, religious institutions, and even companies. However, it is valid to question whether such

privilege is being handled responsibly by the universities themselves. It would be naive not to acknowledge the tendency to fall into the temptation of self-complacency and immobility. As the depository of knowledge, cherished by societies and their citizens, there may be a tendency on the part of universities to believe that change is unnecessary and that it does not make sense to challenge its work and its behavior. Many times, such questioning, especially coming from the outside, is interpreted as an intrusion on the autonomy of the university.

Though the university has a bond of social trust, it cannot consider its status for granted, nor should it consider this trust a blanket authorization to do what it pleases. In fact, the university today is at an important crossroads due to social and economic changes occurring in local communities across the globe that will require a rapid adaptation to an uncertain environment. All this requires that institutions of higher education should seriously consider not only where they stand, but to have a clearer idea on how their actions significantly contribute to building the future we all desire.

For instance, universities cannot stay isolated and silent in the midst of the crisis, marginalization, anxiety and violence present in today's world. We cannot avoid the fact that the university is and should be a reflection of the society in which it is immersed. The idea of keeping universities as a kind of sanctuary, an "ivory tower" designed to achieve an objective abstraction of the external environment in order to provide unbiased observations, critique, and suggestions for its improvement, is no longer valid. A more active involvement in the surrounding communities is essential given the sweeping changes that are sure to effect all institutions. In the end, those of us who are part of the university are human beings that bring to it the experiences, perspectives, aspirations and frustrations of the society in which we live.

It would also be irresponsible to think that the university can or should be immune to persistent social and economic inequality in its immediate surroundings and, in general, in the world. In contrast, the university should redouble efforts to familiarize itself with what is happening outside its walls and to constantly challenge itself, not only as to maintain excellence in the preservation and generation of knowledge, but in the preparation of able citizens which more effectively will contribute to finding solutions to the challenges of today and tomorrow.

It is clear that the university cannot nor should not seek to solve all the problems our society faces today, but we cannot neglect the fact that the university is the last formal opportunity for preparing of future citizens and future leaders of our societies. It is, in the line of the training process, the last refuge which can provide today's students, tomorrow's leaders, not only a solid discipline, but which can affirm their sense of responsibility, solidarity, honesty and respect for others and the rules of peaceful coexistence. If we do not accomplish this work we will be failing society.

If that is the present university, one should also note, as is done in this book, that there are trends of great importance for the future of higher education. I see three relevant trends that will be of great influence in reshaping the future university. One is technological development, the second is the intense mobility of people and ideas that results from globalization, and the third is the management of the access-quality-relevance triad.

Under these circumstances, the university that desires to remain relevant must undertake more explicitly the urgent need to train professionals that are internationally competitive and possess a broad, informed view of the world, who will also assume their responsibility as privileged citizens in the communities

where they live. It is not a matter of choosing a focus on proper global preparation at the expense of less social responsibility at the local level or vice versa. Both are equally important. The global dimension of education makes sense if and only if it has relevance in the local context. At the same time, local action increasingly has more implications for regional and global scenarios. This requires the kind of professional training that the societies now demand. It is necessary to educate global professionals who are able to interpret the new reality and incorporate it into their daily local endeavors. In other words, it is useless to be very comprehensive, to master a second language, to be competitive in an international context, if in our daily lives we are not tolerant and supportive of others and we fail to contribute to the orderly functioning of society. Thus we have to think in both dimensions—global and local—in the training of future leaders, for which the university should explicitly assume more responsibility in this area.

I think much of the action in higher education is, unfortunately reactive rather than proactive, and that is precisely where it seems to me that in institutions like CETYS there are exciting opportunities for innovation. By its history and trajectory, CETYS is an institution that dares to innovate in its ability to better meet the present and future needs of the region in which it is located, with a vision that includes the preparation of global citizens.

The field of opportunity is open. Hopefully the institutional changes that are demanded will be accompanied by the level of reflection necessary for us to act swiftly but also with a good dose of caution.

# The Universality of the University

## Preparing World Citizens

*Celestino Fernández, Ph.D*
*Jessie K. Finch, ABD*

Department of Sociology
University of Arizona

# The Origins: The Universality of the University

## Early Global Centers of Advanced Studies

In their earliest stages of development, universities were international organizations that recognized knowledge had no boundaries and in fact knowledge transcended local and national boundaries (Pacheco and Fernández, 1992). These "universities" (any number of ancient institutions of higher education in various parts of the world would qualify as universities although they were not all called universities at the time) were composed of teachers and students from various nations that studied questions of transnational, universal importance. The areas studied in these early institutions of higher education—primarily philosophy, religion, and science—were without national boundaries. Then, as now, scholars and students sought universal truths and wisdom, not simply local truth and limited wisdom nor only the truth and wisdom of a particular nation or culture.

As noted by Pacheco and Fernández (1992), these early higher education study centers were worldly in both the composition of faculties and students as well as in the areas, fields, and texts studied. For example:

- The best known, most prestigious, and influential institute for advanced study in the classical Mediterranean region was the *Mouseion* (or Museum), located in Alexandria, Egypt, and it strongly reflected the cosmopolitan ethos of the Hellenistic period. Through its scholars, library, and museum, Alexandria led the Greek world in literature and the sciences (while Athens led in philosophy). In 2004, a team of Polish and Egyptian archaeologists unearthed thirteen lecture halls (dated to about 30 B.C.) that are believed to be part of this learning center, dubbed the "oldest university in the world." According to travel editor Jimmy Dunn, "all of the lecture halls, built of limestone, are of identical dimensions. Each contains rows of stepped benches in a form of a semicircle and an elevated seat apparently for the lecturer" (Dunn, 2011). Some of the famous "graduates" of this university include:
    - Archimedes who crafted a water pump of a type still used today;
    - Euclid who organized and developed the rules of geometry;
    - Hypsicles who divided the zodiac into 360 equal arcs;
    - Eratosthenes who calculated the diameter of Earth; and
    - Other scholars believed to have edited the works of Homer and produced the *Septuagint*, the ancient Greek translation of the Old Testament (Karlin, 2005).
- At about the same time, the favorable reputation of the national university in Han-dynasty China extended well beyond the border of China. This university had about 30,000 students and a curriculum that included, for example, Sanskrit Hindu and Buddhist classics.

- During the third century A.D., students from the Mediterranean and Middle Eastern regions were drawn to study various languages, Zoroastrian arts, medicine, and sciences at the Academy of Gondishapur in Persia.
- During Europe's Dark Ages, Jewish and Muslim scholars of the Islamic madrasahs (educational institutions) preserved the Greek and Roman classics, often in Arabic translation.

## The Modern University

The modern university evolved from the institutions known as *studia generalia* (places of general studies, general principles) of the thirteen century. Initially, the term *studium general* simply identified a place of advanced study where students from everywhere were welcome (not only those of the local district or region). Later on, however, it became the customary name for a specific type of medieval university. Most of the early *studia generalia* were found in Italy, France, England, Spain, and Portugal, and were considered the most prestigious places of learning in Europe. These institutions of higher education were international from their origins because they were open without restrictions to students from throughout Europe. "Master" professors were encouraged to give lectures away from their home *studia* and were entitled to teach at other studia without any further examination or qualification. In other words, their credentials were transferable across institutions and national boundaries—truly universal professors.

Pacheco and Fernández (1992) suggest that "it was probably not until the late fourteenth century that the term 'university' began to be applied generally to any community of teachers and stu-

dents whose existence was recognized by either civil or ecclesiastical authority" (24). Yet, from their inception, these institutions of higher learning were international in many respects, including the composition of the student body and the faculty as discussed above, as well as in their universal truth-seeking approach to the curriculum. These learning centers took it as a given that true knowledge cut across local, regional, national, and other types of boundaries that may otherwise confine people and ideas. These institutions and their scholars took it as a given that they were preparing global citizens.

The word "university" is derived from the Latin: *universitas magistrorum et scholarium*, roughly meaning "community of teachers and scholars." It is believed that the term was first coined by the University of Bologna, Italy at its founding in 1088 and, thus, this institution is generally considered to be the first true "university." The University of Paris followed in 1150 and the University of Oxford in 1167.

Political scientist Susanne Lohmann discusses how these early universities began to differentiate. She suggests that "both Paris and Bologna were shaped by the conflict with their environment, and in similar ways, but they ended up at opposite ends of the governance spectrum, Paris controlled by its faculty, Bologna by its students" (2002). These faculty and student models still operate in various parts of the world today. For example, in the United States, faculty continue to have a major influence in the governance structure, particularly academic matters whereas in public universities in Mexico, students have a strong voice in many areas, even the election of the institution's rector (president).

However, older institutions of higher education can also be traced to non-western roots, for example, the University of Al-Karaouine. Located in Fes, Morocco, this "university" originally

was a mosque founded in 859 by Fatima al-Fihri, a woman. The founding of Al-Azhar University in 970-972, located in Egypt, also predates the oldest European universities and is the world's second oldest surviving degree-granting institution of higher education. The universities in the Americas came much later; the five oldest universities in this region of the world are as follows:

- 1538: Universidad Autónoma de Santo Domingo; Dominican Republic
- 1540: Colegio de San Nicolás de Hidalgo; Morelia, Michoacán, Mexico
- 1551: Universidad Nacional Mayor de San Marcos; Lima, Perú
- 1551: Universidad Real y Pontificia de México (now known as Universidad Nacional Autónoma de México or simply as UNAM); Mexico City, Mexico
- 1636: Harvard University; Cambridge, Massachusetts, United States.

The modern university is viewed as a place dedicated to the exploration of ideas—all types of ideas in all areas of study—in the search for universal truths that transcend local and national boundaries. Faculty and students with varied interests and from all types of personal backgrounds, cultures, and nations come together in an effort to better understand the world. Whatever the scholarly discipline may be, the pursuit of knowledge and truth require scholars and students to cross all types of boundaries: imaginary, academic, and geographic. This is the case in all areas of human understanding, including the arts, humanities, and the biological, physical, and social sciences. Social issues such as poverty, crime, education, employment, and immigration are global issues that are found, to varying but always significant degrees, in all parts of the world—

even in the most politically stable nations and in nations with the strongest economies. Questions of sustainability and the environment transcend both academic disciplines and national borders. Issues of security concern the entire world. Sociologists and other academics interested in higher education suggest that "In time, the pursuit of knowledge and truth will lead us to internationalization and, ultimately, to the globalization of universities" (Pacheco and Fernández, 1992). Technology is likely to speed this process, even as some organizations and federal governments resist both the process and the technology, as we will discuss below.

In sum, we underscore the fact that the "missions" of the first centers of higher education in all parts of the world were international: students and scholars from various nations gathered together to study issues in the sciences and humanities—questions that transcended borders, questions of universal interest and applicability. Current research shows how early universities emphasized this: "The idea of the university emerged, manifesting itself in the norms of *ubique docendi* (the right to teach at any institution after graduating from one of them), open access, open information, and free inquiry" (Lohmann, 2002). These "universities" were about forming world citizens: reflective, critical thinkers who understood beyond the local, beyond the nation state—individuals who understood globally, and thus, the universality of the university.

# The Present: Internationalization and Challenges Facing Higher Education

## Globally Connected

The "best" institutions of higher education in the world today, as recognized by peers (as well as the economic market), are global institutions; that is, they are institutions that view quality, specifically excellence in research, teaching, and outreach as directly related to being globally engaged. This issue of being among the "best" and being linked globally plays out in all categories of institutions of higher education: liberal arts/research; public/private; non-profit/for-profit; large/small; two-year/four-year, etc.

Since 2003, a Chinese organization called Academic Ranking of World Universities (ARWU) (http://www.shanghairanking.com/), has published rankings of the best universities in the world. The ARWU ranking process is conducted by researchers at the Center for World-Class Universities of Shanghai Jiao Tong University (CWCU). Since 2009, the rankings have been published by the Shanghai Ranking Consultancy. CWCU endeavors to build a database of major research universities in the world, to develop

a clearinghouse of literature on world-class universities, and to provide consultation for governments and universities. More than 1,000 universities are ranked on six objective measures by ARWU every year and the best 500 are published on the web. As noted in *The Economist*, ARWU is considered "the most widely used annual ranking of the world's research universities" (Wooldridge, 2005). A reporter at *The Chronicle of Higher Education* wrote that ARWU "produces the best-known and most influential global ranking of universities" (Labi, 2010).

The concept of a "world-class university" represents excellence in teaching and research, but perhaps equally importantly, it also signifies and communicates a university's capacity to compete in the age of the global higher education marketplace, which increasingly is becoming the standard.

Of the top ten universities (based on the ARWU 2011 ratings), 80 percent are located in the United States (#1 Harvard U; #2 Stanford U; #3 Massachusetts Institute of Technology; #4 U California-Berkeley; #6 California Institute of Technology; #7 Princeton U; #8 Columbia U; and #9 U of Chicago) and two in England (#5 U Cambridge and # 10 U Oxford). Indeed seventeen, of the top twenty universities are in the United States (#20 U College London, England). ARWU lists only one Mexican University in the 2011 world ranking: Universidad Nacional Autónoma de México (UNAM).

Two other well known rankings of world universities follow. These organizations, along with ARWU, also rank universities within regions, such as Europe, Asia, Africa, and Latin America, as well as by subject area, such as the natural sciences, engineering and technology, social sciences, and arts and humanities, among others.

- QS World University Rankings (http://www.topuniversities.com/): QS has been conducting world university rankings since 2004 with the stated goal of helping "students understand which universities rank the highest around the world." Their 2011 ranking included 712 universities and listed U. Cambridge (England) as #1; Harvard U. (USA) as #2; and the Massachusetts Institute of Technology (USA) as #3. Their regional Latin American rankings included thirteen nations and listed Universidade de São Paulo (Brazil) as #1; Pontificia Universidad Católica de Chile (Chile) as #2; and Universidade Estadual de Campinas-Unicamp (Brazil) as #3. Universidad Nacional Autónoma de México (UNAM) is the first Mexican University listed (#5). A total of thirty-six Mexican universities appeared in the listing of the top 200 Latin American institutions of higher education, making Mexico second only to Brazil, which had sixty-four top-200 listed institutions.
- Times Higher Education World University Rankings (THE) (http://www.timeshighereducation.co.uk/world-university-rankings/): THE rankings of the top 400 universities across the globe seem to be geared for students, much like the QS rankings. Their website, for example, includes a YouTube video clearly aimed at traditional aged students. THE rankings employ thirteen separate performance indicators designed to capture the range of university activities, including teaching, research and knowledge transfer. Their 2011-12 rankings listed California Institute of Technology (USA) as #1; Harvard University (USA) as #2; and Stanford University (USA) as #3. Their listing of the top 200 universities in the world did not include any Mexican institutions, nor did their regional rankings for either North or South America, because their

rankings include only universities in their pool of the top 400 worldwide institutions.

## The Faculty

Modern research-intensive universities have established many global and international connections in various parts of the world through their faculty and students (students are discussed below). It is not uncommon for the faculty at a large research university to collectively have connections and projects in over 100 countries. Additionally, it has become standard practice for these universities to recruit faculty from abroad. During the fall of 2008, for example, the University of Arizona employed thirty-three "non-resident alien" tenure-track faculty members. The percentage of foreign-born faculty at institutions of higher education varies greatly. In 2005, only two percent of academics at French universities were foreign-born, compared to 25 percent of faculty in Swiss universities. In some departments of the University of Peking, a third of the faculty members have American doctorates. But even CETYS Universidad, a much smaller institution, is also linked internationally through faculty from several countries (and through its current president), including distinguished visiting professors from Spain and the United States, for example.

Although many professors enjoy teaching and or conducting research abroad, they tend to prefer these experiences as short-term assignments (with an average maximum of about two years) rather than as long-term or permanent career options. Academic freedom is one of the issues American professors often consider when deciding on teaching and/or conducting research abroad.

In discussing the emerging phenomenon of oversea branch campuses, one study found that

> concerns have been raised about the respect for academic freedom, a process so deeply ingrained in our [U.S.A.] national consciousness that we take it for granted. Although host governments and joint agreements guarantee academic freedom, faculty and administration are justifiably worried (JPMorgan Chase & Co., 2011).

Still, there is a clear and forceful trend toward the globalization of faculty. In fact, many world-class universities now routinely consider "international engagement" as part of the promotion and tenure guidelines for their faculty members. Even so, like students, the overwhelming majority of faculty members throughout the world lack significant international higher education experience. How, then, are these professors going to prepare students for global citizenship?

## College and University Presidents: Linkages, Campuses, and Partnerships

In 2011, the Association of American Universities (AUU), the organization that represents the best research universities in the United States and Canada, reported that eleven of its sixty-one American member institutions have foreign-born presidents/chancellors, up from six just five years ago. Of these eleven foreign-born presidents of AAU institutions, three are from Canada and the others from Australia, China, Cyprus, France, Greece, and South Africa. Recent media coverage of these changes proposes that

> The globalization of the college presidency, higher-education experts say, is a natural outgrowth of the steady increase of international students and professors on American campuses over the past four decades. And it will most likely lead to more relationships and exchanges abroad, they say, while giving students a stronger sense that they are world citizens—a widely advertised goal in academia (Foderaro, 2011).

On the institutional level, the growth and development of international institutional agreements also signifies globalizing higher education. These agreements, for the most part, particularly during their early years (1970s through the early 1990s) were primarily for the benefit of administrators with short life spans in their positions. These agreements served more of a decorative purpose than a substantive or practical function, so they could claim that their institutions were internationalized. Today, the focus is no longer on celebratory institutional agreements but rather on meaningful, practical partnerships that are expected to be implemented almost immediately. This larger trend has changed the way many university agreements operate. In an exploration of higher education, Wooldrige (2005) claims that

> increasingly, developing countries encourage foreign universities to come to them, rather than sending their students abroad. Singapore has established close relations with fifteen partners, including such elite institutions as Stanford, Cornell and Duke Medical School. Dubai has established a "knowledge village" with thirteen foreign universities, and Qatar an "educational city" with four, largely for the benefit of Middle Easterners who want a western education but think they may no longer be welcome in America.

Often led by university presidents, several universities from the United States have opened campuses abroad. These projects are undertaken independently or in partnership with home institutions and/or governments. For example, New York University operates a campus in Abu Dhabi, one of the seven United Arab Emirates, and has established itself, as well, in Buenos Aires, Shanghai, Singapore, and Tel Aviv. Established in 2007, the International Academic City in Dubai is the world's only free zone dedicated to higher education. Georgia Tech has degree programs in France, Singapore, Italy, South Africa, and China. Education City in Doha, Qatar's capital, offers programs in medicine from Weill Medical College of Cornell University, international affairs from Georgetown University, computer science and business from Carnegie Mellon University, fine arts from Virginia Commonwealth University, and engineering from Texas A&M University. Florida State University operates a campus in Panama City. Webster University operates seven overseas campuses from its headquarters in Missouri. In 2012, Stanford University became the first American university to construct a building for its use on the campus of a major Chinese university, Peking University. This facility will serve as a hub for both students and faculty conducting research in China, house several collaborative programs, and host Stanford's study abroad program in China. These are just some of many international campuses and partnerships.

Additionally, several for-profit higher education providers have purchased institutions abroad. The Apollo Group, the parent company of the University of Phoenix, the largest private university in the United States, has purchased universities in Chile, Mexico, and England. The Washington Post's Kaplan, which already had an established presence abroad in England and Ireland, made three international acquisitions during 2011, in Australia,

China, and Spain. Also in 2011, Capella University acquired an online education service provider in England. DeVry University operates in Brazil and claims that about 15 percent of its revenue comes from abroad (Korn, 2011). The foregoing are only a few illustrative examples of a rapidly changing international environment in the for-profit higher education sector.

Even industries such as commercial banking are interested in this growing phenomenon. For example, JPMorgan Chase & Co. published a report on branch campuses. They claim that

> according to the *Observatory on Borderless Higher Education*, there are 162 branch campuses currently operating globally. Nearly 50 percent of them are branches of American universities that largely serve residents of the host country, international students seeking an American education but unable to come to the United States, and American ex-patriots and study-abroad participants (JPMorgan Chase & Co., 2011).

Although the United States may be a leader in the race for the globalization of higher education, it is by no means alone. This same study found that "Singapore intends to draw 150,000 international students by 2012" (JPMorgan Chase & Co., 2011). Both Jordan and Malaysia want to recruit 100,000 foreign students each by 2020 and China wants to increase its international students from its current 200,000 to 300,000. Based on 2010 data, Table 1 below lists the major source and host countries of international branch campuses.

*Table 1. International Branch Campuses by Exporters and Hosts*

| **Branch Campus Exporters** | | |
|---|---|---|
| *Country* | *Number of Campuses* | *Percent of Total* |
| United States | 78 | 48.1 |
| Australia | 14 | 8.6 |
| United Kingdom | 13 | 8.1 |
| France | 11 | 6.8 |
| India | 11 | 6.8 |
| Other | 35 | 21.6 |
| TOTAL | 162 | 100 |

| **Branch Campus Hosts** | | |
|---|---|---|
| *Country* | *Number of Campuses* | *Percent of Total* |
| United Arab Emirates | 40 | 26.3 |
| China | 15 | 9.9 |
| Singapore | 12 | 7.9 |
| Qatar | 9 | 5.9 |
| Other | 76 | 50 |
| TOTAL: | 152 | 100 |

**Source**: International Higher Education; The Boston College Center for International Higher Education. Number 58, Winter 2010.

Having established strong presences in the Middle East and China, many presidents of American universities are now focusing on India. In 2010, for instance, the entourage that accompanied President Barack Obama on his state visit to India included a delegation of presidents from six leading American universities. In recent years, presidents of numerous top-flight American Universities have visited India, including, for example, those from

Stanford, Yale, Chicago, Cornell, and Duke. The quest for globalization of higher education continues in other countries, as well. Efforts are currently underway in China, Singapore, and Saudi Arabia to create world-class research universities to attract top scholars and students. Indeed, many countries are trying to turn higher education into an industry that can both be exported and imported.

One of the most illuminating examples of coordinating higher education internationally is known as the "Bologna Process." Since its inception in 1999, the goal of this process was to ensure more comparable, compatible, and coherent systems of higher education across Europe. This unprecedented international cooperation includes some forty-seven countries in the European Union and the former USSR. Participating countries have standardized their degree structures into the "Anglo-Saxon" bachelor, master, and PhD model. Such standardization has many advantages for students, for example, allowing for greater international student mobility between degree cycles.

One of CETYS Universidad's primary focuses since the arrival of its current President, Dr. Fernando León García, has been globalization. This is evidenced, for example, by the international focus of both his inauguration in January 2010 and the initiation of the University's year-long 50th Anniversary celebration in September 2011, which included representatives from counties around the globe, such as Austria, Australia, Canada, China, Finland, India, Mexico, South Korea, and the United States, among others. The focus of this publication provides further evidence of CETYS' commitment to the globalization of its university. Dr. León García's international experience and contacts are truly worldwide (as noted in the next two chapters).

## The Students

International students are heavily recruited by universities around the world. For example: Australian universities recruit primarily in Asia; Mexican universities recruit all over Latin America; European universities recruit in many European countries; and American universities recruit in almost every country. Wooldridge (2005) notes that, "the world's brightest students—and particularly its brightest graduate students—want to study at the world's best universities. Half the world's students live in developing countries where the supply of university places cannot keep up with the demand." He continues on with strong supporting evidence: "in some departments at Harvard University, 40 percent of Ph.D. students come from abroad. Oxford has recently doubled the proportion of its overseas students, to 15 percent; at the London School of Economics, 75 percent of graduate students are from abroad" (Wooldridge, 2005). Approximately half the students studying at University College Utrecht in the Netherlands, a college modeled after the American liberal arts institution, are from outside the country. In fall 2010, the Tecnológico de Monterrey in Mexico enrolled about 60,000 students at its thirty-three campuses nationwide, including some 4,000 foreign students representing many countries from Latin America and Asia, as well as Germany, France, Spain, and the Netherlands.

According to the National Center for Education Statistics, during 2010-11, the number of international students in U.S. institutions of higher education increased to a record high of 723,277, representing 3.5 percent of total enrollment. The overwhelming majority of these students came from Asia: 22 percent from China; 14 percent from India; and 10 percent from South Korea. No other country was represented higher than four percent (Canada)

and two percent, which came from Mexico. Foreign students studying in the U.S. were almost evenly split between undergraduate and graduate programs. Business and Management attracted the most foreign students (21 percent) followed by Engineering (19 percent); no other area attracted students in the double digits. The University of Southern California in Los Angeles attracted the most foreign students: 8,615.

In fall 2010, the University of Arizona enrolled 2,585 international students—1,153 at the undergraduate level and 1,432 at the graduate level (University of Arizona's Factbook, 2010-11). These students were enrolled in programs in all seventeen of the University's colleges and represented 116 nations, literally from Afghanistan to Zambia. Additionally, the University of Arizona offers opportunities to both its undergraduate and graduate students to study abroad in more than fifty countries. In the academic year 2006-07, 1,800 University of Arizona students participated in study abroad and student exchange programs, some lasting a few weeks and others an entire academic year.

Until 2009, the University of Arizona operated the oldest and largest summer study abroad program in Mexico. This program hosted students in Guadalajara from colleges and universities from throughout the United States and abroad. In its heyday, it enrolled over 1,000 students each summer. The Guadalajara Summer School came to an abrupt end in 2009 because of the influenza (H1N1 "swine flu") outbreak experienced in parts of Mexico during that spring and the subsequent travel advisory (warning) issued by the U.S. Centers for Disease Control. Since then, the program has been suspended indefinitely because many American parents are hesitant to allow their children to go to Mexico due to the fear created by the drug violence. Almost all summer programs in Mexico, regardless of whether they were operated

by U.S. or Mexican colleges and universities, have met the same fate: "cancelled" in 2009 and "indefinitely suspended" since then. The New York Times reports that "a direct result of the attention-getting bloodshed has been the mass cancellation of study-abroad programs throughout the country, including those hundreds of miles from the most dangerous areas" (Lacey, 2010). Similarly, *The Chronicle of Higher Education* stated

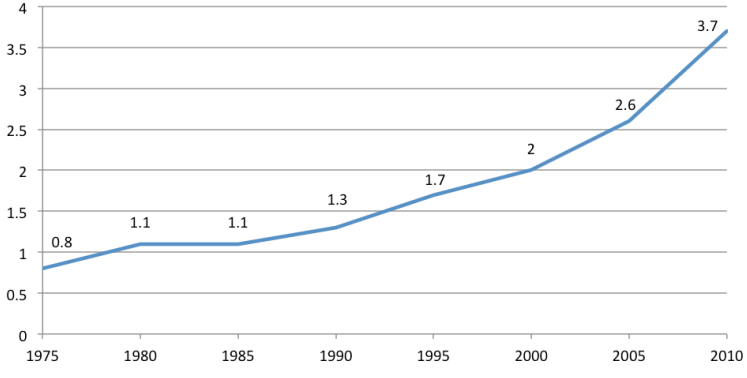
> when the U.S. government warned Americans against traveling to the most violence-torn regions of Mexico in March [2010], the impact on study-abroad programs in the country was immediate and severe. Universities across the United States canceled research projects and warned their students against studying or even traveling in northern Mexico (Lloyd, 2010).

Indeed, when the U.S. State Department issues a travel warning for any part of Mexico, it affects the entire country. For example, when a travel advisory was issued in 2010 for Ciudad Juárez (located on the U.S.-Mexico border, across from El Paso, Texas), the University of Kansas cancelled its summer program in Puebla (located southeast of Mexico City over 1000 miles away); the University of Wisconsin Eau Claire cancelled its program in Monterrey; and Northwestern University cancelled its program in Mexico City. The California State University System banned summer programs to Mexico for all of its twenty-three campuses, as did almost all other American institutions of higher education. Furthermore, Mexican universities also had to cancel their own summer programs aimed at attracting American students. Throughout the years, U.S. State Department travel advisories have also resulted in temporary shutdowns of summer programs in other countries, as well, such as Israel, Kenya, and Haiti. However, the

situation in Mexico has continued for years and it is unlikely to improve in the foreseeable future since the drug violence is both real and routinely reported, almost daily, throughout the American news media.

Although not studying in Mexico in large numbers in recent years, American students continue to study abroad in many other parts of the world. According to the National Center for Education Statistics, during the 2009-10 academic year, 270,604 U.S. students studied abroad for academic credit, representing an increase of 3.9 percent over the previous year. Indeed, U.S. student participation in study abroad has more than tripled over the past two decades. Still, the number of American students studying abroad in 2009-10 was a mere 1.4 percent of the close to 20 million total students studying in U.S. institutions of higher education that year.

European countries were the most popular study abroad destinations for American students during 2009-10: England (12 percent); Italy (10 percent); Spain (9 percent); and France (6 percent). China was the fifth most popular destination with




**Source**: OECD Education at a Glance, 2010. Taken from Project Atlas® Trends and Global Data, by the Institute of International Education.

*Figure 1. International Students Worldwide for Selected Years (In Millions)*

five percent. Mexico ranked eighth with three percent. The most popular areas of study included Social Sciences (22 percent); Business and Management (21 percent); and Humanities (12 percent). No other areas were above 10 percent.

Worldwide, there are about 3.7 million students studying abroad representing all countries, a number that has growing rapidly over the years (See Figure 1). Although the sending and receiving countries may vary, there is no reason to expect that this trend will change in the foreseeable future.

## Organizations

The following list provides some examples of the many organizations found worldwide whose mission is to promote internationalization/globalization of higher education. Given the number of such organizations, one could easily conclude that higher education has achieved a wide and deep level of globalization. Such is not the case however, as the overwhelming majority of university students and faculty throughout the world are not routinely engaged in any type of international educational experiences. Furthermore, little, if anything, has been accomplished by most institutions in globalizing the curriculum. Thus, although most college students and faculty today may be connected to other parts of the world through the Internet, social media, and other forms of technology, the fact is that most faculty and students have not engaged in any meaningful global educational experience.

Again, the following list of organizations (provided in alphabetical order), whose mission includes promoting the globalization of higher education, is merely illustrative and representative; it is not intended to be comprehensive.

- **American Council on Education (ACE)** (http://www.acenet.edu/): Through its International Initiatives, ACE offers various programs and services on globalization to its members. One current project, for example, involves updating Mapping Internationalization on U.S. Campuses, a research project that documents internationalization and global engagement at the nation's colleges and universities. This project will assess many aspects of campus internationalization such as institutional support, academic programming, faculty policies, and international student presence. The study also will attempt to detect emerging trends in global engagement. Additionally, the ACE Fellows Program, a leadership program for emerging college and university leaders, has accepted applicants from abroad throughout its history. The first Fellow from Mexico was Francisco Marmolejo, the current Director of CONAHEC (see entry below). Additionally, the ACE Fellows Program attempts to give participants an international experience as part of the Fellowship experience. For example, some participants have traveled to Mexico, Ecuador, China, England and South Africa to establish networks and learn about higher education issues in those countries.
- **African Network for Internationalization of Education (ANIE)** (http://www.anienetwork.org/): ANIE is a non-profit, non-governmental African network committed to the advancement of high quality research, capacity building, and advocacy on internationalization of higher education with a prime focus on Africa. The network aims to be the leading organization in enhancing the understanding and development of the international dimension of higher education in Africa by expanding knowledge and building, strengthening, and sustaining a cohort of competent professionals in this field.

- **Asia-Pacific Association for International Education (APAIE)** (http://www.apaie.org/): APAIE is an international non-profit organization whose goal is to activate and reinforce the internationalization of higher education in the Asia-Pacific region and around the world, and to engage the professional challenges of individuals in international education.
- **Asociación Mexicana para la Educación Internacional (AMPEI)** (http://www.ampei.org.mx/): AMPEI, The Mexican Association for International Education, founded in 1992, is a non-profit association whose mission is to help strengthen the academic quality of Mexican institutions of higher education through international cooperation and collaboration.
- **Consortium for North American Higher Education Collaboration (CONAHEC)** (http://www.conahec.org/): CONAHEC advises and connects institutions interested in establishing or strengthening academic collaborative programs in the North American region. CONAHEC was founded in 1994 as the U.S.-Mexico Educational Interchange Project and in 1997, the organization adopted its current name and tri-national scope (U.S., Mexico, and Canada). Since 2008, its membership, which numbers about 130 institutions, has expanded to include participation of key higher education institutions from other countries.
- **European Association for International Education (EAIE)** (http://www.eaie.org/): Founded in 1989, EAIE is a European leadership center for expertise, networking, and resources in the internationalization of higher education. EAIE is a non-profit, member-led organization serving individuals actively involved in the internationalization of their institutions through a combination of training, conferences, and knowl-

edge acquisition and sharing. EAIE develops partnerships with key stakeholder organizations and institutions to promote the membership's interests and to advance international higher education in Europe and the rest of the world.

- **Fulbright International Educational Exchange Program (Fulbright Program)** (http://fulbright.state.gov/): Founded in 1949 and sponsored by the U.S. government, the Fulbright Program is the most widely recognized and prestigious international faculty and student exchange organization in the world. The fundamental principles of international partnership and mutual understanding remain at the core of the Fulbright Program's mission. From its inception, the Fulbright Program has fostered bilateral relationships in which other countries and governments work with the U.S. to set joint priorities and shape the program to meet shared needs. In 2010, over 3,600 foreign Fulbright students and scholars entered the U.S. to study, teach, and conduct research, and nearly 3,000 American students and scholars traveled abroad to do the same (IIE, 2011). The Fulbright Program operates in over 155 countries worldwide and approximately 310,000 "Fulbrighters" have participated in the Program since its inception.
- **Institute of International Education (IIE)** (http://www.iie.org/): Founded in 1919 and based in New York City, IIE's fourfold mission is to:
  - Promote educational relations between the United States other countries;
  - Strengthen and link institutions of higher education globally;
  - Rescue threatened students and scholars and advance academic freedom; and

- Build leadership skills and enhance the capacity of individuals and organizations to address local and global challenges.

With 1,100 member institutions of higher education worldwide, IIE operates seventeen offices and employs 600 staff throughout the world, including in China, India, Russia, and Mexico.

- **International Association of Universities (IAU)** (http://www.iau-aiu.net/): IAU, founded in 1950, is the UNESCO-based worldwide association of higher education institutions (about 600 members). It brings together institutions and organizations from some 120 countries for discussion and action on common concerns and collaborates with various international, regional, and national bodies active in higher education. The Association aims at giving expression to the obligation of universities and other higher education institutions as social institutions to promote, through teaching, research, and services, the principles of freedom and justice, of human dignity and solidarity, and contributes, through international cooperation, to the development of material and moral assistance for the strengthening of higher education generally.
- NAFSA **Association of International Educators** (http://www.nafsa.org/): NAFAS, originally standing for National Association of Foreign Student Advisers, is an association of individuals throughout the world advancing international education and exchange as well as global workforce development. NAFSA serves international educators and their institutions and organizations by establishing principles of good practice, providing training, professional development, and networking opportunities, and advocating for international education. With

> nearly 10,000 members, NAFAS is the world's largest non-profit professional association dedicated to international education.

Even many community colleges in the United States, whose foundational mission is locally-focused, are focusing on globalization. For example, the American Association of Community Colleges (AACC), through its Office of International Programs and Services (http://www.aacc.nche.edu/Resources/aaccprograms/international/) offers its members assistance to support the global competitiveness of U.S. community colleges by promoting global awareness, intercultural understanding, and international engagement for students, faculty, staff, and administrators. The lead article in the June/July (2012) issue of *AAC&U News* focused on this very topic: "Graduating and Transferring Community College Students with Greater Global Awareness, Perspective, and Engagement." In June 2012, the Higher Education for Development (HED) and the U.S. Agency for International Development (USAID) announced the expansion of four existing partnerships and five new partnerships as part of the Middle East and North Africa-U.S. Community College Initiative. These partnerships include five Middle Eastern countries and several community colleges in eight U.S. states.

### Conferences

All of the above organizations, as well as many more not listed here, sponsor annual conferences in which members and other individuals interested in the internationalization of higher education come together to engage in discussion on various themes pertaining to the globalization of higher education and to share research papers,

best practices, etc. The following list of most recent conferences is meant simply as illustrative of the many events held annually throughout the world to promote the globalization of higher education and is not meant to be complete or comprehensive.

- AAC&U and City University of Hong Kong (2012): General Education and University Curriculum Reform: An International Conference. Hong Kong, China.
- Australian International Education Conference (2012): International Education in the Asian Century. Melbourne, Australia.
- 4th Annual Conference on Internationalization of Higher Education in Africa: Maximizing Benefits, Minimizing Risks (2012). University of Pretoria, South Africa.
- 4th International Conference on World-Class Universities (2011; held every other year). Shanghai, China.
    - The conference brought together researchers, university leaders, policy makers and other stake-holders from over forty countries to discuss major developments related directly and indirectly to world-class universities.
- IAU 14th General Conference (2012). San Juan, Puerto Rico.
- International Symposium on Society, Technology, Education, and Politics (2012). Beijing, China.
- NAFSA's 64th Annual Conference and Expo (2012). Houston, Texas, United States.
- Organisation for Economic Co-operation and Development (OECD) Institutional Management in Higher Education (biennial) General Conference (2012). Paris, France.
- XX Conferencia Anual AMPEI (2012). Ensenada, Baja California, Mexico.

## The Challenges

Without a doubt, there is exceptional, unprecedented globalization taking place in higher education around the world. Engagement is occurring at every level: student, faculty, administration, institutional, governmental, etc. This engagement is happening daily, both face-to-face and virtually. And, all indicators suggest that it is likely to continue, particularly through the Internet and other electronic means. Students in college today have grown up in a digital world. Even in less developed countries, telephones and other hand-held digital devices are common, making worldwide communication and international education possible. Poverty, of course, continues to mitigate both access and affordability in many parts of the world, including even in certain sectors of countries with the most robust economies.

However, in the continuation of internationalization, the modern university faces numerous significant challenges. Many of these were the focus of the international panels that inspired this publication and which are discussed in the next chapter. Thus, we will not devote much space to these issues here but will list only three (demand, cost, and access). These are the most salient issues, addressed here with limited explication and discussion since they will be discussed in the next section as well as in the next chapter. To be sure, these three issues are not independent; indeed, they are inextricably interrelated.

### *Demand*

The "Democratization" or "Massification" of higher education (the shift from a small elite university system to a mass education sector, serving a wider ability range from across a much broader

socio-economic spectrum of students), common in the United States since at least the end of WWII, is also now taking place worldwide. The demand for higher education has risen dramatically throughout the world, including and in particular among the masses, people who were previously greatly underserved, if at all served, by the educational sector.

In 2009, nearly 153 million students were enrolled at universities worldwide, a figure that represents a 53 percent increase in just nine years. This demand has been driven somewhat by people's interest in becoming more educated but it has been driven mostly by the realization that higher education has become the means to almost any type of employment. Not only is college an avenue to employment but it also leads to more gainful employment—higher salaries and benefits. It is a well documented fact that over the course of a lifetime, individuals who attend college earn significantly more than those who do not. Thus, everyone wants/needs to go to college to better their employment trajectory. The Higher Education Research Institute (HERI) at the University of California at Los Angeles which conducts an annual survey of entering freshmen in the United States reports that the top reason given by students as to why they are going to college is to "be able to get a better job." In fall 2011, 86 percent of entering students selected this category over all others provided. Of course, obtaining a college degree does not guarantee the recipient either a job or a higher salary. This is particularly evident during periods of economic recession, such as the one we have been experiencing since 2008, during which time many college graduates have had a difficult time finding any type of employment. The most extreme case may be in Spain where 50 percent of people between 18 and 30 years of age, including college graduates, cannot find gainful employment.

Still, the question before colleges and universities is how to meet the rapidly expanding demand for higher education. Part of the response has been to create additional spaces at existing institutions. This type of expansion, however, has not been effective since many existing institutions are already over-enrolled and, thus, relatively few additional spaces could be made available. Another response, which has been somewhat more effective because it has resulted in the creation of new opportunities for enrollment, has been the opening of private universities, mostly for-profit. For example, "the number of private universities in China has soared to more than 630, up from twenty in 1997, according to a 2010 analysis from the Center for International Higher Education at Boston College" (Butrymowicz, 2012). In all, the private institutions enrolled about a fifth of Chinese college students in 2008. The third response, although many faculty and some nations still resist this approach, is through online education, a model that has been the most efficient in serving large numbers of students.

However, even as opportunities have expanded, the demand for higher education is still far greater than the availability of spaces in colleges and universities worldwide, particularly in large emerging markets such as China, India, Latin America, and the Middle East. *The Washington Post* reports that "in the late 1990s, fewer than 10 percent of Chinese people age 18 to 22 were enrolled in higher education, according to government data. Now the figure is about 27 percent—or 30 million students—and the government hopes to reach 40 percent by 2020" (Butrymowicz, 2012).

### *Cost/Affordability*

The cost of higher education throughout the world has risen dramatically during the past decade, particularly since the recession started in 2008. The costs of attending college are much greater

at private institutions, including both non-profit and for-profits, than at public colleges and universities. However, the cost of education has increased dramatically at public institutions as well. Although historically public higher education was free or close to free, that is, students were charged no or very low tuition and/or fees, today, most public colleges and universities charge tuition and fees. This is certainly the case in the United States and is becoming increasingly common in other parts of the world. In many countries, in various regions of the world, including Europe, Latin America, and Asia, government funding has not kept pace with demand; on the contrary, in many counties, governmental financial support for education has actually decreased.

Nigel Healey, the head of the College of Business, Law, and Social Sciences at Nottingham Trent University, suggests that

> the paradox of democratisation is that, while an intended public policy goal, it creates unsustainable financial tension. Mass higher education is invariably either publicly provided or publicly subsidised. Rising participation rates lead to budgetary pressure on the taxpayer subsidies to higher education, resulting in falling per capita subsidies to universities. Australia, New Zealand and the UK have all been forced to introduce domestic tuition fees to allow universities to compensate for declining public subsidies, but these tuition fees have been politically sensitive and highly regulated (Healey, 2010).

The introduction of tuition and fees, or increases in such, have taken place in other parts of the world, as well, including in Europe, Canada, and Latin America, often facing great resistance from university students. Witness the demonstrations in Mexico City in 1999, for example, when the President of unam proposed

increasing its fees from less than $1 U.S. dollar to about $150 per semester (fees had not been increased since 1948 and it was costing the university more to collect them than they generated in revenue). The student strike lasted 292 days, 632 people were arrested, fees were not increased, and the president lost his job in the process.

Such tuition/fee demonstrations have occurred worldwide; a few examples follow. From September through December 2009, students demonstrated on the campuses of the University of California to protest against a 32 percent rise in tuition costs which was approved by the Board of Regents. In 2010, students demonstrated in London to protest fee hikes that would triple tuition. In 2011, several students were beaten by police when protesting a tuition increase at the City University of New York (CUNY). Massive student demonstrations took place in Colombia in 2011 in opposition to the government's proposed Ley 30 education reforms; protestors brought the capital city of Bogota to a standstill on October 26th and November 3rd, closing off the city center for hours, with large demonstrations taking place in other cities in Columbia, as well. Education reform demonstrations were common in Chile throughout 2011. Also in 2011, university students in South Korea demonstrated in support of reducing tuition. Most recently (in February 2012), students in Puerto Rico demonstrated against a 50 percent tuition fee increase. In May, 2012, nearly 700 people were arrested in Canada after a protest over an 80 percent university tuition increase in Quebec (the demonstrations in Canada lasted over 100 days). Also in May, 2012, people demonstrated throughout Spain in response to government cuts to universities and a proposed 25 percent increase in tuition.

Indeed, the backlash against tuition and fee increases in higher education has been worldwide. This is understandable,

given the current recession and increasing debt of students. In the United States, even with its extensive scholarship program, federally and state supported student loans have become the primary means of financing higher education. Although traditional-aged students often work part-time, it is simply not enough to cover all of the costs of education and, therefore, many borrow money to pay for tuition and fees or for other college expenses. Two-thirds of American students earning a bachelor's degree in 2010 at non-profit institutions of higher education had student loan debt, with an average of $25,250 for those with debt (Reed, 2011). Of course, such debt varies greatly by college, with average debt being higher for graduates from private universities. By contrast, 45 percent of 1992-93 bachelor's degree graduates borrowed money. The New York Times reported on one student graduating with $120,000 in debt from Ohio Northern University, a private institution where tuition is about $48,000 per year (Martin & Lehren, 2012). As of 2011, total accumulated student loan debt in the U.S. has reached $1-trillion, surpassing all credit card debt!

Student loan indebtedness is a major issue for students attending for-profit institutions, especially since they serve a large segment of students from poor and working class backgrounds. In 2009, 15 percent of students that attend for-profit colleges defaulted on their loans within three years of leaving college, compared to about 7.2 percent for those attending public institutions and 4.6 percent for private colleges and universities. *USA Today* reports that "nearly half of all federal student loan defaults occur at for-profit schools, although the schools have only 10 percent of higher education students" (Cauchon, 2012). Still, since 80 percent of college and university students attend not-for-profit institutions, a great deal of the total student loan debt is accumulated at these institutions.

*Access*

Much of the world's population, including in the most developed nations, still does not have access to higher education. Such lack of access is due to various factors, including lack of adequate student preparation, affordability (discussed above), and availability of viable options. Although the issue of access is closely related to the issue of cost (in that much of the currently underserved population is of poor economic means and thus cost has great impact on this population's ability to attend college), the issue of access also speaks to other dimensions of the changing demographics of the student population in higher education. These changing demographics include, for example:

- Students from poor and working class backgrounds who are the first-in their families to attend college, dubbed "first-generation" students;
- 8A larger proportion of students with physical and mental disabilities;
- An increasing female population that has previously been greatly underserved. Even in modern nations, such as the United States with highly developed systems of higher education, the issue of gender representation needs attention as males, particularly from certain ethnic and racial groups, are greatly underrepresented in colleges and universities, especially in four-year and graduate degree programs.
- A greater diversity in students' ages. Adults are starting and/or returning to college in unprecedented numbers and taking classes along with "traditional age" students (18-24 years).

As a result of all of these demographic changes, institutions of higher education are realizing that "one size," or one model, does not fit all. This one model attempts to encompass both student services and academic programs, including teaching styles. For example, older adults expect to be engaged in their learning more so than do traditional age students and are not content with only listening to lectures and taking exams.

There are several other issues facing higher education today, such as accountability, relevance, and transparency, for example, but the three noted above—demand, cost and access—are the most pressing, particularly the issue of cost. Although during the past twenty years higher education has expanded worldwide and in many respects it is thriving (including in its globalization) there are several serious cracks in the traditional model. As noted elsewhere in this chapter, the current model, particularly the financial model, is unsustainable for public institutions as well as for most private institutions, not only in the long run but in the foreseeable future. Substantive changes are required in order to finance higher education; indeed we need a paradigm shift if higher education is going to be available and affordable to the masses.

A paradigm shift, however, is unlikely to come from within the higher education establishment, given its conservative and traditional nature. While often described by administrators as "cutting-edge" or "leading-edge," institutions of higher education are often anything but. On the contrary, most colleges and universities are extremely conservative, as are higher education associations, including the accrediting agencies. Political scientist Susanne Lohmann (2002) cautions that "there is a dark side to the history of the university. It is largely a history of ossification punctuated only too rarely by bursts of intellectual vibrancy and structural innovation. In the large sweep of history, change occurs not

because existing scholars, departments, and institutions move with the times, but through replacement. New ideas and methods are developed by new generations of scholars working in newly founded disciplines. New structures that support new forms of inquiry and learning emerge in newly founded universities."

Often, change in higher education comes from outside the traditional sector, from new, highly innovative institutions, public pressure, and/or politicians responding to constituent concerns. The wide adoption of online education among traditional institutions of higher education in the United States, for example, is the result of student demand, declining governmental support, and competition from non-traditional institutions such as the University of Phoenix, and not the result of innovation within the traditional institutions of higher education. Furthermore, it was the University of Phoenix, an outsider institution at the beginning, which led the entire online education movement in a major way, often with much resistance from the traditional sector. We will have more to say on this in the next section.

In recent years and into the foreseeable future, if for no other reason than the depressed state of the economy worldwide, higher education has been and will continue to be under much pressure to change; indeed, it is being forced to change in both philosophical and practical matters.

## The Future: Constant State of Change

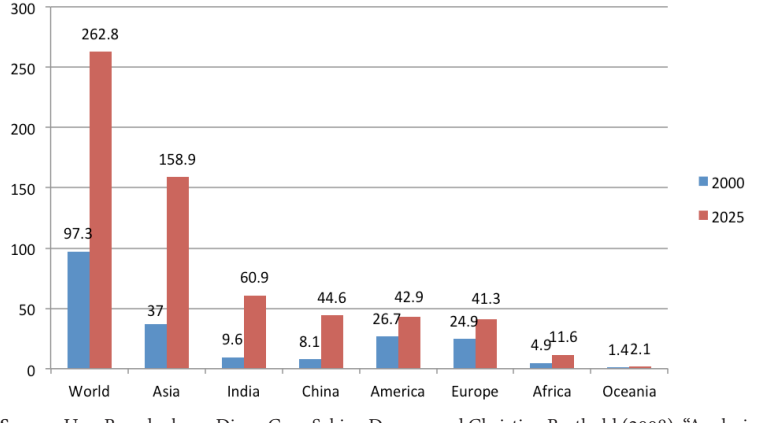
Although we can look across the higher education horizon today and, based on what we see, attempt to foresee changes, the exact detailed future simply cannot be predicted. Thirty years ago, even fifteen years ago, for example, who would have predicted the role that technology plays today in higher education? Specifically the explosion of online education, particularly when traditional institutions and accrediting agencies vehemently protested this means of delivery when it first emerged, would have been nearly impossible to forecast. A case in point: when the University of Phoenix moved to Arizona after having been forced out of California by the Western Association for Schools and Colleges (WASC, the regional accrediting body), the three state universities in Arizona and the Arizona Board of Regents launched an all-out campaign to discredit this fledgling university. Indeed, change has always been difficult in higher education. Thus, change has often come as a result of outside pressures or external innovators and in a limited number of cases, from exceptional higher education leaders within the traditional sector.

Still, while we may not be able to predict the exact, detailed future, one thing is crystal clear: the traditional model, particularly the financial model, is unsustainable. The three issues identified

in the previous section (demand, cost, and access) will need to be addressed in the near future. Let's look at how these issues might unfold.

## Demand

Simply put, higher education is becoming a universal aspiration. As discussed in the previous section, there is great demand for the massification of higher education throughout the world, with exceptionally high demand in India and China based on the size of their populations. Indeed, growth in student numbers is one of the most striking aspects of higher education globally, both today and in the future. Although some of this growth will be accommodated by existing institutions, the majority of the growth will have to be accommodated through other means, such as new private universities (although the concept of private universities




**Source**: Uwe Brandenberg, Diane Carr, Sabine Donaur and Christian Berthold (2008). "Analysing the Future Market – Target Countries for German HEIs." Working Paper No. 107. CHE Centre for Higher Education Development. Gütersloh, Germany, p.13.

*Figure 2. Demand for Higher Education by Region (In Millions)*

has been contentious in some countries, such as Greece) and the expansion of online education by both traditional institutions and the for-profit sector.

*University World News* has predicted that

> the number of students around the globe enrolled in higher education is forecast to more than double to 262 million by 2025. Nearly all of this growth will be in the developing world, with more than half in China and India alone. The number of students seeking study abroad could rise to eight million—nearly three times more than today (Maslen, 2012).

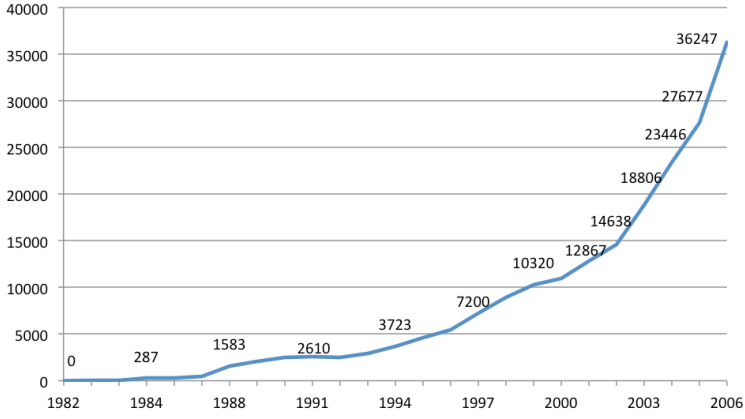
Brazil, among several other countries, is also experiencing greater demand for higher education, a trend that is likely to continue. As noted above, most countries experiencing growth will not be able to meet the expected demand through public financing. Therefore, these groups will turn to other means, as already witnessed in emerging trends, such as private universities (both non-profit and for-profit), online education, study abroad options, branch campuses, etc. Branch campuses, for example, are "a direct response to the growing needs of global higher education. In many countries, especially those classified as emerging markets, demand is exceeding the ability of those countries to deliver higher education to their students" (JPMorgan Chase & Co., 2011).

As the Figure 2 graph depicts, the demand for higher education will more than double worldwide from just over 97 million in 2000 to just under 262 million in 2025. Much of that growth will occur in Asia where enrollments will grow from 37 million to just under 159 million. In China, the number of degree earners soared from about 800,000 graduates in 1998 to more than 5 million

graduates a decade later. Still, significant growth will take place in many other parts of the world, including in regions and countries with highly developed and extensive systems of higher education, such as Europe and the United States where enrollment is projected to grow from 25 million to 41 million and from 26 million to 42 million, respectively.

Demand for higher education is growing throughout the world and this demand is likely to increase, particularly since higher education is viewed as the gateway to professional employment, indeed, to any type of meaningful employment. Also contributing to the demand for higher education, however, is the growth in the high school and college educated population; the more education people have, the more they want and expect. Higher education enrollment growth has occurred and is expected to continue to occur worldwide and at every degree level, including Associates, Bachelor's, Master's and Doctoral as well as for certificates. The Economist has claimed that "the Chinese are engaged in the biggest university expansion in history. The expansion at the doctoral level is even faster than for undergraduates: in 1999-2003, nearly twelve times as many doctorates were awarded as in 1982-89. And there is more to come: the number of new doctoral students jumped from 14,500 in 1998 to 48,700 in 2003" (Wooldridge, 2005). The Figure 3 documents this dramatic growth in graduates at the doctoral level in China.

Again, although some of this growth will be absorbed by existing institutions of higher education, most of it will not. Thus, we can expect to see the growth of both private universities and an expansion of for-profit education, both in physical and virtual forms. These agencies will do particularly well if they can offer a quality education at an affordable price. U.S. economic commentators have argued that




**Source**: Li, Haizheng (2010). Higher Education in China: Complement or Competition to US Universities? pp 269-304 of American Universities in a Global Market ed. Charles T. Clotfelter. University of Chicago Press: Chicago, IL.

*Figure 3. Doctoral Degrees Awarded in China for Selected Years*

> the problem for policymakers is how to create a system of higher education that balances the twin demands of excellence and mass access, that makes room for global elite universities while also catering for large numbers of average students, that exploits the opportunities provided by new technology while also recognising that education requires a human touch (Wooldridge, 2005).

## Cost/Affordability

As it should be keenly understood by now, the current financial model in higher education, particularly in the public sector, but even for most of the private colleges and universities, is simply unsustainable. Thus, from our perspective, the most pressing is-

sues in higher education are its costs and who pays for it. Not only during recessions, although heightened during downturns in the economy, declining governmental support for higher education (with minor exceptions) has become the norm and "doing more with less" has become the mantra of higher education organizations. For example, state support at the University of Virginia dwindled in two decades from 26 percent of the operating budget to 7 percent; at the University of Michigan, it declined from 48 percent to 17 percent; and at the University of California-Berkeley, its operating budget slipped since 1991 from 47 percent to 11 percent. Overall, we see a pattern that "states spent one-fifth less per public university student in 2010 than in 2000, in inflation-adjusted dollars" (de Vise, 2011).

How have colleges and universities responded to budget reductions from the government? Mostly by raising tuition and fees to the point where both students and parents are raising questions about affordability and value. A central question in modern families today: is college really worth it? Given the time and cost involved in obtaining a degree along with the fact that many college graduates cannot find employment of any type much less in their field of study, as has been promised by college recruiters and society at large, many parents and students are increasingly weighing the benefits of the degree against its very high costs. Modern higher education has been sold to both traditional age students and adults as a means to professional employment—employment with higher wages and benefits. This continues to be what students are seeking today: students are seeking professional training, not character-building. Increasingly, however, employment and higher wages are not what graduates are finding as they exit college (with high debt), certainly not during the long-running recession that started in 2008 and seems to have no end in sight. No wonder, then, that in

the United States, a dozen law schools are facing law suits for allegedly deceptive job-placement rates. For many, college's traditional "return on investment" may no longer be worth the cost.

Under these circumstances, some of the very wealthy elite institutions, and institutions in currently exceptionally wealthy countries, will be able to sustain the current financial model longer, but they too will face the crisis that is now upon public universities throughout the world: how to finance higher education and keep it affordable for the masses in the context of declining governmental support. That is a major challenge which up to now has been met with some institutional trimming but mostly through increases in tuition and fees charged to students, which, for several years have risen faster than the rate of inflation. As noted in the previous section, the increase in tuition and fees has resulted in exorbitant and rapidly escalating student debt (as well as many student demonstrations). At a speech before 4,000 students at the University of Michigan in 2012, President Obama stated: "We're putting colleges on notice—that you can't assume you'll just jack up tuition every single year. If you can't stop tuition going up, your funding from taxpayers will go down. We should push colleges to do better; we should hold them accountable if they don't."

Overall, institutional trimming has been minimal; in fact, administrative salaries, particularly at the top level (president, vice presidents and deans) and at the elite institutions (both public and private), have continued to increase, even during the recession when faculty and staff salaries have stagnated (Perry, 2009). Additionally, the number of administrative and professional positions has increased in recent years ("administrative bloat") while many tenure-track faculty positions have been eliminated or converted to adjuncts, mostly part-time and without benefits

(Perry, 2009) (of course, some administrative growth has been due to dramatic increases in regulatory compliance from both federal and state governments which require additional staff to locate data and complete forms, as well as from student demand for enhanced or new services). For example,

> Michigan public universities increased their spending on administrative positions by nearly 30 percent on average in the last five years, even as university leaders say they've slashed expenses to keep college affordable for families. The number of administrative jobs grew 19 percent over that period at the state's public universities, according to data submitted by the schools to the state budget office (Jesse, 2011).

A similar pattern is found at the University of North Carolina System:

> System wide over the past five years, the administrative ranks have grown by 28 percent, from 1,269 administrative jobs to 1,623 last year, UNC-system data show. That's faster than the growth of faculty and other teaching positions—24 percent—and faster than student enrollment at 14 percent. The number of people with provost or chancellor in their titles alone has increased by 34 percent the past five years, from 312 in 2004 to 418 last year. The cost was $61.1 million, up $25 million from five years before (Perry, 2009).

The institution that first solves this critical issue—the financing of higher education—will provide leadership for the entire sector, just as the University of Phoenix initially led in online education. A new cost structure model, a new paradigm, is desperately needed. However, given the traditional, conservative, and old-fashioned nature of higher education, undoubtedly there will be

much resistance, perhaps even antagonism to the new financial model and its leaders. For no matter how "cutting edge" or "leading edge" institutions of higher education claim to be, the overwhelming majority are conservative in the literal sense of wanting to conserve things as they are and quite adverse to comprehensive innovation (other than marginal, or innovation on the margins), including in the organizational structure, mode of operation, curriculum and policies. Still, the current financing model is simply unsustainable and will prove a motivator for change in some manner or another.

## Access

For much of their history, universities catered to the elite sector, a fairly homogeneous group in terms of preparation, wealth, gender, age, ethnicity, race, religion, etc. In their early years, for example, many colleges and universities did not admit women and/or members of particular racial, ethnic, and religious groups. Even if admitted to the particular university, specific groups were often excluded from certain programs, such as the professional tracks of medicine and law. Although the gender issue in higher education has been, for the most part, resolved in many regions of the world, it is still playing out in several areas, including the Middle East, Asia, and Africa (Kristof and WuDunn, 2009). And, in many parts of the world, indigenous populations are almost invisible on college and university campuses.

In the Unites States, higher education began to diversify with the introduction of the G.I. Bill after WWII that created a means for returning military veterans to afford college through a generous tuition support program. Further diversification came with

the Civil Rights Movement of the 1960s and 70s that resulted in greater access for both minorities and for women who had previously been excluded simply because of their ethnicity/race or because they were female (or both).

Today, diversity is the name of the game in higher education worldwide. Minorities, women, and other previously excluded and/or underserved groups rightfully expect access to institutions of higher education, particularly to public sector institutions. When such access if not forthcoming, members of these groups will protest and demonstrate until it is granted. Women, as a group, reasonably expect that they will be treated as equal citizens and will no longer stay in the home and be told, by men, what to do, how to do it, and when to do it. For many of the women involved in the "Arab Spring" of 2011, for example, the issue was not simply about ousting the head dictator, but about ousting dictators at every level. Free people will not go freely into bondage again, be they monks in Tibet or women in the Middle East.

Data from the U.S. Census Bureau (2008) predict that by 2050, 54 percent of the U.S. population will be comprised of individuals from groups currently called "minorities" who, undoubtedly, will seek higher education in great numbers. Researchers now propose that "within each minority group, there are projected to be significant increases in the percentage of students attending college. Should these trends persist, college students will become much more diverse in the coming decades, provided that higher education continues to be at least as accessible as it is currently" (Hainline et. al, 2010). In the United States, women currently make up about 57 percent of all higher education enrollments, and this is projected to increase to 61.5 percent by 2018. Thus, the gender issue in higher education increasingly will include the changing roles and status of males, as well.

It should be noted that student and faculty diversity on college and university campuses has many educational benefits, oftentimes not recognized in some current systems that discriminate against categories of people. Sociologist Aaron Thompson lists eight of these major benefits:

1. Diversity **expands worldliness** through interaction with people from diverse groups.
2. Diversity **enhances social development** through interaction with people different from oneself and one's group.
3. Diversity p**repares students for future career success** since the workplace has become and will continue to become more diverse.
4. Diversity **prepares students for work in a global society** since most careers require interaction with people from throughout the world.
5. Diversity **increases our knowledge base** since research consistently shows that we learn more from people who are different from us than from people who are similar to us.
6. Diversity **promotes creative thinking** since it expands the perspectives from which we can view and understand problems and issues, indeed, the world.
7. Diversity **enhances self-awareness** through comparison with people of diverse backgrounds.
8. Diversity **enhances multiple perspectives** promoted by general education and liberates one from tunnel vision or "group think" (Thompson and Cuseo, 2009).

In sum, the future of higher education is one in which there will be greater diversity in the student body (and faculty) along several dimensions, including preparedness, age, ethnicity, race, religion, socioeconomic status, gender, nationality, and physical and mental disability, to name some of the most salient. This diversity has direct consequences for both student and academic services. Colleges and universities will need to figure out how to effectively deal with all of this diversity; that is how to ensure that all students are given a fair chance at succeeding, which has not been the case in the past. This is evidenced, for example, by the high drop-out rates of more diverse groups, especially during the first year, at most colleges and universities today (with the exception of the most highly selective institutions and, thus, most highly homogenous, at least on the dimensions of preparedness and motivation).

### Other Future Issues: Technology

Another area in which we may not be able to provide exact details but can predict that there will continue to be great changes is in the use of technology in higher education. We can be certain that technology will continue to advance and that college students will demand its central use in various areas of the educational model, including: as part of the organizational structure; in how students do business with the institution; in the delivery of education; in teaching; in learning; and in all other aspects of the educational enterprise. Other researchers have confirmed this growing trend:

> Web 2.0 technology (such as the social networking Web site Twitter and the photo-sharing Web site Flickr) is reshaping the educational landscape in the twenty-first century. Eventually, traditional lec-

> tures may be replaced by online learning communities. Faculty and students may no longer meet three times a week in a classroom but instead interact through learning communities in cyberspace (Hainline et. al, 2010).

Already, technology has greatly influenced how we teach and it is likely to continue to do so in the future. What will The University 2.0 look like?

Here, too, individuals and institutions, including universities and governments, will attempt to resist technology (currently, some federal governments still resist online education; for example, in Chile). In the long run, however, the technology itself will dictate policy and practice; just as satellites have influenced the distribution of television programming; cellular technology has influenced the availability of telephone service worldwide; and the Internet has made information instantaneously available worldwide. There is no doubt, in our minds, that technology will be part of, perhaps the most major part of, the solution to both mass access and the cost of higher education throughout the world. And this will occur in spite of the problems technology encounters from those who resist it to those who try to cheat it—whether it be students trying to get unearned high grades or administrators and/or owners trying to make a quick dollar.

Some interesting emerging developments in higher education made possible by technology follow, although it is difficult to predict which ones, if any, will grain wide acceptance or have a major impact in the industry. All of these ventures have been launched since 2009.

- Peer 2 Peer University (P2PU): This non-profit university, that started in 2009 and offers free courses, had 33,000 reg-

istered users in 2012. P2PU is questioning the need for professors to serve as instructors since anyone with a passion for a topic can set up a course. One of P2PU's major challenges will be financial sustainability once its initial grants from the William and Flora Hewlett Foundation (U.S.) and Shuttleworth Foundation (South Africa) run out. Also, it has been difficult finding volunteers to keep the courses going (Mangan, 2012).

- Massive Open Online Courses (MOOC's): Some institutions have started offering free online courses that anyone in the world with Internet access can take. Some of these courses can be taken for credit or simply to learn the material; in some cases, completion of a set of courses leads to a certificate. Following are a few examples of these initiatives.
    - Udacity: This program grew out of a course on artificial intelligence offered by two Stanford University professors that attracted 150,000 registered users worldwide by the time the course began.
    - Coursera: This initiative offers free, online courses by professors from Stanford University, the University of Michigan, the University of Pennsylvania, and Princeton University.
    - edX: Formed in May 2012, edX is a partnership between Harvard University and the Massachusetts Institute of Technology (MIT) to begin offering free, online courses from both institutions in the fall 2012. Each institution committed $30 million to the venture. Students completing courses will not receive university credit but they can earn certificates. At the announcement, representatives of edX spoke of "reaching millions of new students in India,

China, and around the globe" (Chubb and Moe, 2012). In an accurate description of trends, Miller (2012) says "I suspect Harvard and MIT already know that online education—and infotainment, in particular—is where we're headed. Which is why they will not only offer free courses online this fall, they'll also gather data about students—an explicit goal of the project. Quite likely, that data will show that students like being entertained. And that—with a few graphics and some editing—we may be able to find a high-gloss, low-cost way of delivering education" (Miller, 2012).

    - University of the People: Started in 2009, this university is international, tuition-free and non-profit and in 2012 enrolled 1400 students from 130 countries in two- and four-year degree programs in business administration and computer science. The University of the People has established partnerships with Yale University, New York University, and Hewlett-Packard.

- The Minerva Project: Minerva, although interesting but not necessarily innovative since for-profit, online institutions already exist, was announced in 2012 (plans to open with 200 student in 2014) and only in the planning stages is billed as "the first elite American University to be launched in a century" and "committed to making the world's newest elite undergraduate experience affordable," reportedly for under $20,000 per year (www.minervaproject.com). A for-profit university, Minerva intends to serve the world's academically "best" students. The institution is being launched by a $25-million investment from "a leading venture capital firm."

## Other Future Issues: Accreditation

Accreditation is the process of assuring quality in educational practices. Most basically, there are two categories of accreditation: 1) program accreditation, which accredits specific degree programs such as law, business, education, or engineering; and 2) institutional accreditation, which accredits entire institutions of higher education. Here, we are concerned with institutional accreditation, although our comments could easily apply to individual program accreditation, as well.

Long practiced in the United States, institutional accreditation in higher education has gained wide acceptance worldwide during the past fifteen years. Even the small island of Barbados has an accrediting council. In the United States, accreditation has been practiced for over 115 years; the Higher Learning Commission of the North Central Association of Schools and Colleges, the oldest and largest accrediting body (serving nineteen states and over 1,000 institutions) and one of six regional institutional accrediting agencies in the U.S., celebrated its 100th anniversary in 1995.

Most countries now recognize the importance of having colleges and universities evaluated against a common set of quality standards. It is understood that this is an important mechanism for both quality assurance and improvement. Furthermore, it is increasingly common for parents and students to expect that institutions of higher education will be accredited by the appropriate organization(s), even if most students and parents do not fully understand what accreditation is or how it is undertaken. Therefore, we predict, that institutional accreditation will become common practice across the world as higher education continues to globalize. Also, some institutions will seek accreditation from

foreign agencies, as has been the case with CETYS Universidad (in Baja California Norte, Mexico) that in 2012, after a multi-year process, was granted accreditation by the Western Association of Schools and Colleges (WASC), one of the six regional accrediting agencies in the U.S.

In most countries, "quality assurance" for higher education institutions is conducted by the federal government, usually through its ministry/secretariat of education. In the United States, institutional accreditation is conducted by private nonprofit membership groups primarily through the six regional accrediting "associations." Thus, as might be expected, the rules and procedures for higher education institutional accreditation vary from country to country, although there is some similarity in the standards or criteria by which colleges and universities are evaluated as well as in the methodologies and procedures employed in the assessment process.

Still, a major challenge facing global higher education in the future is the standardization of accrediting criteria. Some standardization across nations would go a long way to facilitate student and faculty mobility and, perhaps more importantly, the transfer of academic credits and acceptance of degrees from one country to the next (similar to the benefits of the Bologna Process in Europe discussed above). However, standardization will not be easily accomplished because each country/region tends to cling tightly to its own rules and procedures and most are unwilling to compromise. This is one more example of the traditional and conservative nature of higher education institutions. Even in just one country such as the United States, the six regional accrediting agencies cannot agree even on nomenclature; some regional agencies prefer "Criteria" while others "Standards" for the broad measures by which they evaluate institutions for accreditation in their regions.

Accreditation has proven to be a solid means for providing students, parents, government officials, and the public at large assurance of quality, since an accredited institution must meet certain criteria that have been developed by experts for such purposes. Although this is a very positive aspect of accreditation, there is another side to the process that tends to inhibit innovation. Because an agency's criteria are applied to all institutions in its region, the process tends to create uniformity among institutions in their policies, structures, practices, programs, etc. For example, if a new institution of higher education is developed and it wants to be accredited (in most countries now a direct or indirect requirement if that institution wants to operate in that country), it must demonstrate that it meets the pertinent pre-existing criteria for accreditation. In the end, most institutions look and feel quite similar to one another.

An excellent example is documented in the development of the University of Phoenix. When this institution first started in California, WASC essentially ran it out of its accrediting region because it was too different from traditional institutions of higher education. This is why its founder, Dr. John Sperling, moved it from the San Francisco Bay area (part of the WASC region) to Phoenix, Arizona (part of the Higher Learning Commission (HLC) region). In the beginning, when founded in 1976, the University of Phoenix looked and felt too different from the current model of the traditional institution of higher education in many ways (Sperling, 2000): it was not organized into "colleges;" its faculty were called "Practitioners" not Professors; all faculty were part-time and none were on tenure-track lines; administrators were not called "Department Heads" or "Deans;" all classes were offered at night and on weekends; courses were standardized with a common syllabus; many courses, and even entire degree

programs were offered online (beginning in 1989); all students had to be 23 years or older and working; there was no physical library; the "campuses" were leased buildings in corporate settings without any cafeterias or athletic facilities; and the list goes on. However, most of all, the University of Phoenix was developed as a "for-profit" institution and this was simply antithetical to everything traditional. To HLC's credit, it recognized that the issue was about quality and not about tradition—mere structure and appearance. But even today, the University of Phoenix faces criticism and challenges from individuals, sometimes in positions of power and influence, who abhor the notion of "for-profit" higher education. Students, of course, have voted with their feet, and presently, the University of Phoenix enrolls about 350,000 students, making it the largest private university in the United States. Ironically, over the years, the University of Phoenix has become more like the traditional institutions (with the addition of many full-time faculty, "colleges," and "deans," for example) and the traditional institutions have become more like the University of Phoenix (fewer tenure-track faculty and more part-time adjunct faculty and more online programs).

The challenge for accrediting agencies remains in the fact that accreditation is a double-edged sword: while it controls quality on one side, a positive, it creates uniformity and greatly limits innovation on the other side, a negative. True innovation, not just tinkering on the margins, is desperately needed, especially to address the unsustainable financial model discussed above and to meet the rapidly expanding demand for higher education worldwide. Limiting innovation is counterproductive at best and irresponsible at worst. The question remains, how can universities truly innovate while continuing to meet accreditation standards? More importantly, how can accreditation facilitate genuine innovation?

Finally, if we are concerned about globalizing higher education, and specifically about developing world citizens, there will be a need in the future for an accreditation criterion/standard or an international accrediting organization that assess an institution's level of globalization. We leave this concept for future development, explication, and discussion.

# The University and Globalization: Back Full Circle

Many individuals, including the authors of this chapter, and organizations believe that global competence will be an imperative and must become part of the core mission of education at all levels—from K-12 through graduate school. As discussed above, many organizations emphasize internationalization and this has become the topic of much media attention. For example, this is the message of the eight-minute video, *U.S. Global Competence: A 21st Century Imperative* (http://www.usglobalcompetence.org/videos/imperative_large.html/), as well as of the longer video (16:29 minutes), *Engaging the World: U.S. Global Competence in the 21st Century* (http://www.usglobalcompetence.org/videos/engaging_large.html/), produced on the 50th anniversary of the HEA-Title VI and Fulbright-Hays programs.

In an ideal world, globalization of higher education would be based on a model that requires every student and faculty member to travel abroad to study and teach, respectively. This model, however desired, is not currently realistic given the problems with the

modern university discussed above and is simply not going to be implemented in the existing trajectory of higher education. Thus, the most efficient means to comprehensive globalization of our colleges and universities is through the globalization of the curriculum so that all students, at all degree levels, are involved in global education. Once curriculum becomes globalized, the issue of credit transferability—a major issue across national borders—will also be resolved.

Changing the curriculum, however, will not be easy, on the contrary. There is a practical recognition in the frequently-heard saying of Woodrow Wilson, who served as President of the United States and President of Princeton University: "It is easier to move a cemetery, than to effect a change in curriculum." Likewise, with the saying that change at institutions of higher education moves at a "glacial speed" (global warming notwithstanding, glaciers move rather slowly). Changing a curriculum, even in small ways, is always problematic and likely to arouse conflict, passion, and resistance among the faculty: "the university is naturally, inherently, antithetical to change" (Hefferlin, 1972). Nonetheless, we are encouraged by the fact that the Association of American Colleges and Universities has assisted about 100 colleges and universities in integrating global learning into the core curriculum. In 2012, Northern Arizona University was in the process of modifying its curriculum to focus on "Global Competence," broadly defined as "being able to communicate across cultures and understand the intersection of local and international topics" (Wilhelm, 2012). Still, the curriculum must be changed at all colleges and universities worldwide if it is to remain relevant and help students develop into world citizens.

## Preparing World Citizens

As in the formation and development of the first "universities" with their universal focus, the modern university is being shaped by globalization. Perhaps more than ever, the need for global understanding and commitment to solving issues that transcend national boundaries is critical to human survival. Although universities should be committed to developing graduates who can contribute at all levels of society, including the local community, universities should first and foremost be developing world citizens; that is, individuals who can function and contribute at the international level. That is where the future of higher education lies.

### *References*

Butrymowicz, S. (February 12, 2012). In China, private colleges, universities multiply to meet higher-education demand. *The Washington Post*.

Cauchon, D. (October 18, 2011). For-Profit Colleges Focus of Student Loan Issue. *USA Today*.

Chubb, J., and Terry, M. (May 30, 2012). Higher Education's Online Revolution. *The Wall Street Journal*.

de Vise, D. (December 26, 2011). UC-Berkeley and other 'public Ivies' in fiscal peril. *The Washington Post*.

Dunn, J. (2011). The Ancient University of Alexandria (The Mouseion). Available at http://www.touregypt.net/featurestories/mouseion.htm

Foderaro, L. W. (March 9, 2011). More Foreign-Born Scholars Lead U.S. Universities. *The New York Times*.

Hainline, L. et al. (Summer 2010). Changing Students, Faculty, and Institutions in the Twenty-First Century. *PeerReview,* 12 (3).

Healey, N. (Abril, 2010). Future of international higher education after the global crisis. *QS Worldclass Showcase*.

Hefferlin, J. B. (1972). Hauling Academic Trunks. In C. U. Walker, (Ed), *Elements Involved in Academic Change*. Washington, D.C.: Association of American Colleges.

IIE (Institute of International Education). (2011). *2011 Annual Report*. Available at http://www.iie.org/en/Who-We-Are/Annual-Report

International Higher Education (2010). *International Higher Education*. The Boston College Center for International Higher Education. Winter, 58.

Jesse, D. (March 27, 2011). Amid tougher times, spending on payroll soars at Michigan universities. *Detroit Free Press*.

JPMorgan Chase & Co. (2011). *Education as an Export: The Globalization of U.S. Higher Education and the Emergence of the Overseas Branch Campus.*

Karlin, S. (January, 2005). Oldest University Unearthed in Egypt. *Discover Magazine*.

Kristof, N. D., and WuDunn, S. (2009). *Half the Sky: Turning Oppression into Opportunity for Women Worldwide*. New York: Vintage Books.

Korn, M. (October 10, 2011). DeVry CEO Looks Abroad After Hard Tests. *Wall Street Journal*.

Labi, A. (October 10, 2010). International Group Announces Audit of University Rankings. *The Chronicle of Higher Education*.

Lacey, M. (June 26, 2010). Mexican Violence Deters U.S. Colleges. *The New York Times*.

Lloyd, M. (August 18, 2010). U.S. Warning Halts Americans' Studying in Mexico, but Europeans Are Filling the Gap. *The Chronicle of Higher Education*.

Lohmann, S. (2002). Herding Cats, Moving Cemeteries, and Hauling Academic Trunks: Why Change Comes Hard to the University. Paper presented at the Annual Meeting of the Association of the Study of Higher Education. Sacramento, CA. November 21-24.

Mangan, K. (April 22, 2012). In This Online University, Students Do the Teaching as Well as the Learning. *The Chronicle of Higher Education.*

Martin, A. and Lehren, A. (May 12, 2012). A Generation Hobbled by the Soaring Cost of College. *The New York Times*.

Maslen, G. (February 19, 2012). Worldwide student numbers forecast to double by 2025. *University World News*.

Miller, K. (June 13, 2012). The Most Important Challenge For Colleges Isn't Price—It's Attention. *The Atlantic*.

OECD Education at a Glance (2010). Project Atlas® Trends and Global Data, prepared by the Institute of International Education.

Pacheco, M., and Fernández, C. (1992). Knowing No Boundaries: The University as World Citizen. *Educational Record*, 73, 23-27.

Perry, M. J. (August 17, 2009). Bloated University Administrations. *Carpe Diem*.

Reed, M. (November 3, 2011). *Student Debt and the Class of 2010.* A Report of The Project on Student Debt. The Institute for College Access & Success.

Sperling, J. (2000). *Rebel with a Cause: The Entrepreneur Who Created the University of Phoenix and the For-Profit Revolution in Higher Education.* New York: John Wiley & Sons.

Thompson, A., and Cuseo, J. B. (2009). *Diversity and the College Experience*. Dubuque, IA: Kendall Hunt.

University of Arizona (2010-11). The University of Arizona's 2010-11 Fact Book. Available at http://factbook.arizona.edu/2010-11.

Wilhelm, I. (May 25, 2012). Northern U. Overhauls Curriculum to Focus on 'Global Competence'. *The Chronicle of Higher Education*.

Wooldridge, A. (September 8, 2005). The brains business: A survey of higher education. *The Economist*.

# Future Trends in Global Higher Education

International Panel
CETYS University

*Compiled by Dr. Marlene Ross*

Higher Education Consultant

# A Celebration of
# The 50th Anniversary of CETYS University

## A Message of Fernando León García, President of the CETYS University System

Although more complex than ever, still, the world feels as if it is getting smaller. One can communicate with anyone anywhere in the world within minutes, indeed, sometimes seconds. To recognize our connections with others everywhere in the world, CETYS University celebrated the 50th Anniversary of its founding by inviting leaders from universities around the world to participate and share their knowledge, experiences and perspectives from their country in discussions focusing on *Global Trends in Higher Education*. Thus, on September 19, 2011 institutions representing countries took part in discussions focused on five different aspects of the future of higher education. The sessions were held on the Mexicali Campus of CETYS University and focused on the following themes:

- The Impact of Changing Demographics on the Future of Universities.

- The Future Role of Accreditation in Assuring Quality.
- The Impact of Technology on the Future of Universities.
- The Impact of Globalization on the Future of Universities.
- Achieving Sustainability in the Future of Universities.

This group of world leaders, including presenters, panelists and moderators, contributed their expertise, sharing experiences and information about higher education in their countries, enumerating trends and innovations, and offering recommendations for future actions, initiatives and programs. This chapter summarizes their comments and their suggestions for college and university leaders to strengthen higher education around the world and to improve the educational experience of all those involved in tertiary education worldwide, especially students.

We hope you will find the information contained in this report, particularly the recommendations, useful as you plan the future for your institution wherever you are located.

# Future Trends in Global Higher Education

## Introduction: The Context

In 1961, a group of forward-thinking, generous Mexican business executives decided to establish a new university, Centro de Enseñanza Técnica y Superior (Center for Technical and Higher Education), CETYS University, initially in Mexicali, Baja California Norte, along the U.S.-Mexico border. Established with the commitment and support of Instituto Educativo del Noroeste, A.C. (IENAC), CETYS University has focused on its mission and high quality throughout its history. Today this University has three campuses—Mexicali, Tijuana, and Ensenada—with more than 2,500 undergraduates and more than 600 graduate students enrolled in its many programs, including business, education, engineering, humanities and social sciences, among others.

CETYS University has been designated as a university of excellence and is recognized by state and federal authorities, as well as FIMPES, a private accrediting association in Mexico. At the time of the symposium on *Global Trends in Higher Education*, CETYS University was in the final stages of receiving U.S. regional accreditation from the Western Association of Schools and Colleges (WASC). It has since received its first WASC accreditation.

In September 2011, CETYS University launched a year-long celebration of the 50th anniversary of its founding. Since internationalization has been a strategic objective and an integral part of the University's mission and the students' education, in recognition of the 50th anniversary CETYS University invited higher education leaders from around the world, representing Asia, Australia, Europe, Latin America, the Middle East and the United States, to a discussion of "Global Trends in Higher Education." A summary of these world leaders' comments who participated on the panels is presented below.

A series of interviews made to participating experts are also presented. These interviews delve into the issues raised in the panel.

**PANEL ONE**

# The Impact of Changing Demographics on the Future of Universities

Dr. Celestino Fernández
*University Distinguished Outreach Professor, Department of Sociology, University of Arizona (Moderator)*

Dr. Felipe Cuamea
*Rector, Universidad Autónoma de Baja California, Mexico*

Dr. Martin Harris
*Dean of Academic Affairs, The Chicago School of Professional Psychology*

Dr. Nancy Marlin
*Provost, San Diego State University*

Dr. Friedrich Roithmayr
*Vice Rector for Internationalization, Johannes Kepler University, Austria*

Mr. Shao Jin
*Vice President, Jinling Institute, Nanjing University, China*

Society is always changing. Yet, there are certain periods of time when demographic changes are very dramatic leading to critical consequences for institutions and organizations. Various significant changes currently are occurring throughout the world. The world's population is aging and, in most developed countries, those over 60 years old number more than the 12-24 age group. The world's population is predicted to be 9.1 billion by 2050, with most of the growth occurring in less developed countries (*Finance and Development*, 2006). Access to higher education is a concern in most countries as well as issues related to financing the costs of students' postsecondary education.

To truly appreciate what the projected population of the world's more than 7.8 billion people would look like by 2020, we have projected their mix into 100 people:

- Fifty-six would be from Asia, including 19 Chinese and 17 Indians.
- Thirteen would be from the Western hemisphere, including four from the United States.
- Sixteen would be from Africa, including 13 from Sub-Saharan Africa.
- Three would be from the Middle East.
- Seven would be from Eastern Europe and the former Soviet Union.
- Five would be from Western Europe (Cental Intelligence Agency, 2001).

In the United States, in 2010, children under age 18 made up 24 percent of the total U.S. population—an all-time low. In many developed countries such as Japan, France, Germany, and Canada, the proportion of the population under age 18 is substantial-

ly lower than in the United States where the number of students who graduated from high school peaked in 2008. Additionally, there has been tremendous growth in some populations, especially the Latino/Hispanic population. In 2010 there were 50 million Hispanics living in the United States, making up nearly one in six U.S. residents and surpassing, for the first time in U.S. history, the Black/African American population. The Latino population increased 43 percent since 2000 and has more than doubled since 1990. This population is expected to continue to grow rapidly, comprising 25 percent of the U.S. population by the year 2043; by then, one in every four Americans would self identify as Latino/Hispanic. Overall, minorities accounted for 92 percent of the total U.S. population growth during the past decade, and Hispanics accounted for over half of the increase. Meeting their needs in higher education will be critical to the United States' success.

Many U.S. institutions have expanded the definition of diversity to include serving the needs of other underserved groups in addition to those representing various racial and ethnic groups and those from low socioeconomic backgrounds. For example, San Diego State University is one that has increased its effort to serve veterans. One-half of the homeless in the San Diego area are veterans.

In Mexico, few students have access to postsecondary education, while the demand for such education is growing rapidly. Access needs to be expanded to meet student demand, provide social mobility, and prepare graduates who can contribute to the development of the country. As in many other countries, retention and degree completion are issues needing attention as are the development of policies that will provide greater access for all students, including disabled students (currently there is no policy for disabled students in Mexico).

One recommendation is to work with students beginning in junior high, since many of the higher education processes, including application and acceptance, are mystifying for students. Leaders need to implement strategies to help students understand the joys and challenges of postsecondary education as well as the need for such education. San Diego State University has instituted MAPS (Major Academic Plans) to assist students with their decision-making. Faculty and staff need to provide advice so students are not making decisions based on what they hear from their roommates or friends, which oftentimes is inaccurate.

The infrastructure needs to exist to support student needs. Faculty and staff need to be open-minded about students, technology, teaching and other innovations and changes that are taking place in higher education as well as future changes already on the horizon. It is important to assess student satisfaction and demonstrate how the institution responds, when appropriate, to student dissatisfaction. In Austria, for example, there are support services to ensure student success. University services include academic advising regarding degree programs. There is a student union that includes student-to-student advising. Students assess professors giving students a voice regarding the quality of the courses offered. The university is incorporating blended learning approaches to support students who work; about one-half of the courses use telelearning. There are also support services for parents such as childcare, and counseling services for students, helping them learn how to focus and how to deal with stress and other issues that might interfere with their academic success. The university has numerous cooperative efforts with local businesses in the community. These include sponsorship programs, joint projects, and classes offered by instructors that incorporate academic theory with real-world approaches.

In China, there has been expansive growth with many new colleges and universities. 2008 was the year in which the number of traditional college age students peaked, with a decrease expected for the next 10 years. The lowest number will be in 2018, which will be 40 percent of the number in 2008.

In light of the current and future demographic changes, several issues can be identified, including the following four.

1. There needs to be serious attention focused on how to fund higher education. The U.S., in particular, has been disinvesting, particularly during the past 15 years, in public higher education and shifting the burden of cost to students and their families. Throughout the world, there are great concerns about how to finance higher education in the future and, thus, how to maintain access, particularly for students from low socioeconomic backgrounds.
2. We all need to be more engaged with foreign universities. CETYS University and San Diego State University, for example, have had an active partnership for 25 years. CETYS University has been very forward thinking in its relationships with foreign universities. More universities need to replicate successful international partnership models so students are better prepared to function in global contexts.
3. Institutions need to develop true, active partnerships, not just perfunctory or celebratory partnerships, to better serve the global community.
4. Primary and secondary schools need to develop strategies to increase the academic preparation of students as well as the number of students who want to attend a university.

As Dr. Roythmayr noted, in 20 years, Austria's population will increase to approximately 9 million. According to recent projections, by 2050 Austria's population will continue to grow steadily to approximately 9 ½ million. The age distribution is clearly moving towards an increase in the number of older people. Currently, 23 percent of the population is aged 60 and over. By 2020, this number will increase to 26 percent and by 2030, the number is estimated to be over 30 percent. The number of those aged 80 and over will increase from 400,000 now to 630,000 by 2030.

In the other hand, Dr. Nealon-Woods stated that the two demographic trends that the Chicago School of Professional Psychology will focus on in the near future are race/ethnicity and online adult education. The most notable trend in graduate education in the U.S. is the significant increase in the African-American and Hispanic/Latino populations enrolling in post-baccalaureate programs. According to the National Center for Education Statistics, since 2000, the number of African-American and Hispanic/Latino students enrolled in graduate programs in the U.S. has increased by 42 percent and 25 percent, respectively.

The following efforts are being pursued to address student engagement and degree completion:

- The Office of Faculty Development is launching a systematic effort to prepare faculty in the art and science of graduate student retention.
- The Office of the Vice President for Academic Affairs (VPAA) is planning to place academic support units on each campus to focus on academic writing and quantitative skills associated with statistics.

- A proposal to support degree completion efforts is currently being prepared for submission to the Council of Graduate Schools.
- Recognition awards for exemplary retention and degree completion efforts will be awarded to academic departments annually.
- The Office of the VPAA is working to establish a retention and mentoring unit to serve all campuses.
- The Chicago School of Professional Psychology will focus on recruiting a diverse faculty. In view of evidence that students are more academically successful if there is a critical mass of faculty with similar demographics, a more diverse student body requires a more diverse faculty.
- The Blue Ribbon Task Force on Diversity, reporting to the President, is charged to develop, promote, and explore existing progress and challenges related to diversity initiatives.
- The Center for Latino Mental Health forges partnerships with community and social service agencies that serve the Latino population and spurs research to positively influence the diagnosis, treatment, and prevention of mental disorders among the Latino population.

To ensure quality in online education, faculty members are required to pass the Teaching Online Pedagogy and Standards (TOPS) course. In addition, there is

- Regular outreach to new students throughout their initial three terms (the most crucial time in a student's career).
- Weekly and mid-term review of student activity and grades with targeted outreach to at-risk students.

- Continuing student calls, encouraging the students who are doing well and ensuring they feel supported.
- Constant support for instructors.
- Virtual office hours via webcam.

This scalable model has been paramount to ensuring that students have the support and resources they need in order to receive a high quality education online.

There is an Online Center for International Studies whereby online students have access to activities such as study abroad programs and international service learning, usually reserved for more traditional students.

To summarize:

- There is great and increasing demand for higher education all over the world among all age groups, not just the "traditional college age" (18-24). Also, many students are first generation university bound, that is, they are the first one in their families to ever attend college. This demand has spurred the establishment of private, non-profit institutions in many countries as well as a rapid increase in the number of private, for-profit institutions.
- There are increasing challenges in meeting the educational needs of a highly diverse student body, diverse in various ways, including gender, ethnicity, race, age, disability, different levels of preparation, to name a few.
- To adequately and fully prepare students for the world in which they will live and work, we need to educate them to be global citizens.

*References*

Central Intelligence Agency (2001). *Long-Term Global Demographic Trends: Reshaping the Geopolitical Landscape*, U.S. Government Central Intelligence Agency, July 2001.

*F&D Finance and Development* (2006). A quarterly magazine of the IMF, September 2006, 43 (3).

## PANEL TWO

# The Future Role of Accreditation in Assuring Quality

Ing. Enrique Carlos Blancas de la Cruz
*Former President, CETYS University System, México (Moderator)*

Dr. Petr Budinsky
*Deputy CEO, University of Finance and Administration, Czech Republic*

Mtro. Ángel Eliseo Cano
*President Board of Directors, FIMPES,*
*and Chancellor, Universidad Latina, México*

Dr. Michael William Mulnix
*Dean, Higher Colleges of Technology, United Arab Emirates*

Dr. Ralph Wolff
*President, Western Association of Schools and Colleges (WASC), USA*

Ing. Luis Eduardo Zedillo Ponce de León
*Managing Director, Council for Higher Education Accreditation (COPAES), México*

The purpose of institutional accreditation is to ensure quality in all of a university's/college's programs, processes and activities. In the U.S., the Council for Higher Education Accreditation (CHEA), through the six regional accrediting agencies, is focused on this purpose using voluntary review by peers. In most other countries, government agencies are responsible for assuring quality and assessments are required, not voluntary.

Nations and institutions are at different stages in their accrediting processes. In the Czech Republic, programs are accredited but not institutions. In the United Arab Emirates, its newly established institutions are discussing program accreditation. In Mexico, 107 universities volunteer to be part of the accreditation program as they seek to improve their quality. The Council for Higher Education Accreditation, COAPES (the Spanish acronym), was established in 2000 and coordinates activities for accreditation focusing on programs and curriculum. The Federation of Private Mexican Institutions of Higher Education (FIMPES) conducts institutional accreditation.

In the U.S., accreditation is non-governmental although it is linked to federal aid. Institutions that want to access federal student aid, and almost all do, must be accredited by agencies reviewed and approved by the Federal government through the Department of Education. There are 7 national accrediting bodies, 6 regional accrediting agencies, and 63 program-accrediting organizations. All focus on integrity, capacity, and effectiveness. To assess quality, there is emphasis on student learning outcomes. An institution can no longer merely specify what is taught but must identify specific learning objectives for every course and all programs and must employ appropriate ways to document student progress and achievement. Critical thinking and social consciousness are two outcomes that are expectations of the regional

accrediting bodies. Results of the regional accrediting process are private although it is expected that the reports and actions will be placed on the institution's website. In the for-profit institutions, the relationship of student debt to the ability to get a job upon program completion ("gainful employment") is being examined.

Trends to watch in accreditation, include: 1) Increasing transparency in accreditation processes and resulting reports; 2) Developing metrics to assure quality in online programs; 3) Defining learning outcomes institutions expect to achieve; 4) Increasing amounts of data to ensure quality of student learning outcomes and achievement of specified outcomes; 5) Clearer definitions of how to use data to improve student learning; 6) Identification of program learning outcomes; 7) Degree qualifications process being piloted over the next two years; and 8) international accreditation (possibly more institutions seeking accreditation from outside their countries).

To summarize:

- Accreditation is essential to ensure quality.
- The accreditation process is accomplished in different ways in different countries.
- The practice of "institutional" accreditation is increasing worldwide.
- Assessment is a critical aspect of accreditation and it should focus on student learning outcomes.

**PANEL THREE**

# The Impact of Technology on the Future of Universities

Dr. Kurt Kirstein
*Dean of the School of Management, City University of Seattle, usa (Moderator)*

Kenneth Andam
*Computer Scientist and Technology Innovator, USA/Ghana*

Dr. Marko Forsell
*Senior Lecturer and head of MBA Programs,*
*Central Ostrobothnia University of Applied Sciences, Finland*

Mtro. Doug Fraser
*Director, University of Southern Queensland, Springfield,Australia*

Dr. William Graves
*Vice President of Academic Strategy, Sungard Higher Education, USA*

Dr. Gerald Reisinger
*President, Upper Austria University of Applied Sciences, Austria*

Today's students are very comfortable with technology of all sorts, including online, collaborative technologies. This significantly affects what occurs in most classrooms now and is likely to have an even greater effect in the future. Most institutions struggle with the rising costs of the technologies, the diversity of technology, the rapid pace of technological change and, thus, keeping the equipment, classrooms, and faculty current.

*The Economist Intelligence Unit* issued a white paper entitled "The Future of Higher Education: How Technology will Shape Learning" summarizing a survey on the role of technology in higher education. The major findings are:

1. Technology has and will continue to have a significant impact on higher education.
2. Online learning is gaining a firm foothold around the world.
3. Corporate and academic partnerships will increase.
4. Universities view technology as having a positive impact on campus.
5. Higher education institutions around the world have embraced the concept of globalization through technology.

In Australia (as in many other countries now), students can choose to do their entire program online (a practice pioneered by the University of Phoenix 20 years ago and for which that institution continues to be recognized as a worldwide leader). While it may be is easy to buy hardware and software, it is much harder to use them in effective ways. In classrooms, faculty regularly use a device ("clickers") that enables students to give answers immediately, helping the professor to see if the students have learned the concept. Social networks keep students and alumni interacting on a regular and frequent basis with the institution.

In Austria, Applied Science University services border regions where students historically have not had access to higher education. However, many programs need labs and students miss the personal and social interaction when engaged in online learning. The University uses social networks for distributing information, as a marketing tool, to inform the community about events, and to contact new student groups.

In Finland, there are currently 60 courses using the Internet with 3,000 students participating. Teachers need new skills to use these tools. Social networking sites offer the opportunity for e-mentoring.

In Ghana, there is a strong social media environment with students familiar with the newest technologies. There is a need for more education, at all levels, for more people. Information is power; education is freedom. Social networking has enabled the acquisition of additional information and opportunities for education. It helps students learn and communicate but there is a need for regulatory policies. Currently, there is use of the mobile phone whereby students can get material printed with an Edupay number.

In the United States, there is a great deal of social networking. "Learning is a contact sport." Problems are scale and price. Does anyone own the Internet? Lots of people have a stake in it. The Internet Society referees disputes. Some consider it part of the common good. It has certainly created new wealth. Still, we need to educate all Internet users, including college students, on how to assess the quality and reliability of the information found on the Internet.

Over the next three to five years, Australia has identified several challenges: matching the technology with how we teach and planning for what the future classroom will require. In addition, it

is important to extend the reach of students who do not have access to online education or onsite classes. Research needs to study how online experiences are changing how brains work and affecting attention spans. Clearly, students accustomed to being "connected" all of the time and anywhere, have very short attention spans.

Austria is working to reduce the costs of technology. The role of the professor is viewed as changing from that of a provider of knowledge to a knowledge coach.

The Finland representative quoted from *Zen and the Art of Motorcycle Maintenance*, by Robert Pirsig, a book that although published long before the Internet was invented and certainly before it was so ubiquitous, relates to the notion of free information (and education) for everyone, anytime and anywhere.

The real university has no specific location. It owns no property, pays no salaries and receives no material dues. The real university is a state of mind. It is that great heritage of rational thought that has been brought down to us through the centuries and which does not exist at any specific location. It's a state of mind which is regenerated throughout the centuries by a body of people who traditionally carry the title of professor, but even that title is not part of the real university. The real university is nothing less than the continuing body of reason itself.

In Ghana, two questions need to be considered: what is the goal of technology? What are we trying to accomplish at the university? Technology provides "disruptive solutions" that replace traditional models. It is an agent of chaos that removes the personal interaction. We need to consider the economic, political, and social consequences of increasing use of technology.

In the United States, there is the sustainability issue. There is difficulty scaling up with the high costs of technology and limited resources. We need to collaborate in different ways. Perhaps we

should teach general education courses with technology and then focus on "high-touch" in more advanced courses. Yet beginning students often need more contact with the professors as they learn how to function in higher education that has suddenly provided them with greater freedoms. There is a need to think collectively about the best ways to use technology in the process and experience of higher education, particularly as technology relates to student learning.

To summarize:

- Technology, while commonly in use and having a mostly significant and positive impact on higher education, is not used in a uniform way. Technology impacts each higher education institution in different ways. Research should continue to determine both how and the extent to which technology increases student learning.
- High-tech needs to be accompanied by high-touch or its value is limited. Questions remain regarding what is lost when educators rely too much on technology. How important to the learning process are interpersonal interactions between the student and instructor, as well as among students?
- Has the nature of the student changed as a result of this generation's lifelong exposure to technology? We need to continue to prepare faculty and administrators to meet the technology knowledge presented by students. Continuous faculty retooling is necessary to enhance the educational experience of the students. There will be increasing use of social networks and other technological innovations in teaching and learning.

## PANEL FOUR

# The Impact of Globalization on the Future of Universities

*Dr. Álvaro Romo de la Rosa*
Secretary General-Elect, International Association of University Presidents (IAUP), USA/México (Moderator)

*Dr. David Atkinson*
President, Grant MacEwan University and Vice President of the Consortium for North American Higher Education Collaboration, Canada

*Dr. Antonio Flores*
President & CEO, Hispanic Association of Colleges and Universities (HACU), USA

*Terrence Henderson*
Director of International Affairs, Sungkyunkwan University, Korea

*Ing. J. Alfonso Marín Jiménez*
Former President, CETYS University System, México

*Dr. Jan Rebró*
Vice President, City University of Seattle European Operations, Vysoka Skola Manazmentu, Slovakia

We have to accept globalization and function within a global world. We are in it, whether we want it or not. Forces that have advanced globalization include the information and communications technology revolution, our increasingly interdependent and interrelated economy, the increase in the number of travelers across international boundaries (for both business and pleasure), the worldwide role and importance of the English language, among others.

We need to look at the impact of globalization, including on higher education. Universities respond to globalization by internationalization of their programs and campuses. Internationalization actions include student and faculty exchanges and mobility across programs, inter-institutional cooperative agreements, branch campuses in other countries, and other efforts. One positive result is joint research by faculty in various parts of the world. However, there are some negative effects of globalization such as the diminishing of national and regional cultures, the great inequality between advanced and developing nations, the loss of autonomy, and the existence of poor quality distance learning programs operating as businesses greedy for money with no control of their quality.

In a discussion of trends impacting the future, competitiveness is a force driving interaction. Institutions respond to real market pressures. Knowledge is a globalized process. Examples pointed out by the Korean panel representative include dissertations, global consortia of excellence, virtual global faculty reducing costs, expansion of global branch campuses, emergence of a super global university, and the high number of university failures and mergers.

The economic driver is underlying all the efforts. There are multilateral, multinational, bilateral trade agreements. Addition-

ally, there are demographic shifts across the world. The majority of the population growth is in developing countries. In the U.S., there is explosive growth in the Latino population that is now the largest ethnic minority group in the United States in 2011. Furthermore, migration, including of college students, is an increasing worldwide phenomenon.

Universities can be shapers of change or shaped by factors outside themselves. Are they catalysts for change or simply responding to change? Differences are more fascinating than sameness. The university needs to focus on differences (such as cultural differences) to lead to greater understanding and globalization.

We are facing a global world. How fast can we adapt? Global problems require global solutions. Education needs to prepare students for global solutions. We need to localize the information to make sense for each locale. In Slovakia, faculty rotate to different sites and students study in different locations to gain a variety of experiences.

There is a definite need to resolve regulatory conditions in higher education since they are currently different in different countries. We will not be able to get agreed-upon standards unless this is resolved. Will there ever be a universal bachelor's degree that can be accepted across international boundaries?

There are about 3,500 non-profit colleges and universities in the United States. There are many more for-profit institutions with a range of programs (from automobile maintenance certificates to doctoral degrees) and quality. The Federal government is implementing new regulations for the for-profit institutions that specify that the graduates must be eligible for "gainful employment." As the Federal and state governments continue to cut back on financial support, the number of for-profit institutions is likely to increase.

Private institutions have not been popular in Canada. Post-secondary education is a provincial mandate. There are a handful of for-profit institutions but they are subject to the same regulatory requirements as other privates. However, there has been a proliferation of ESL (English as a Second Language) operations. Many politicians in Canada are in favor of more flexible, responsive, just-in-time education.

In Slovakia, universities are highly regulated. Alternative institutions were not possible until recently with the first private higher education institution established in 1999. There are now ten private universities but they are not popular, with only 5 percent of the total student body studying at private institutions. If the institution has programs in other countries, students can study at any campus while paying the local tuition. Foreign institutions outside the European Union are prohibited by law from opening branches within European countries; their activities are limited to partnerships with domestic institutions. This regulation has led some for-profit institutions to purchase European private universities and then to operate them as for-profits, a practice that for-profits have extended to other parts of the world.

The United States wants international students to come to study in the U.S. (many other countries also recruit international students). There are about 600,000 international students studying in American colleges and universities, with only 10 percent from Latin America. There are 2.5 million Latinos in higher education in the United States, but only 2- 3 percent go out of the country to study, with most going to Europe.

Recommendations to improve international students' experience include:

1. the need to establish international education guidelines;
2. the need to explore new ways to involve students from low socioeconomic backgrounds;
3. the need to establish reciprocity agreements regarding cost of the experience;
4. the need to expand international opportunities for students
5. each institution needs to expand its international contacts to strengthen its program; and
6. students should study in the language of the country they are in.

There are an increasing number of students coming to South Korea. In 2008, they established an international summer semester. In 2011, 500 students from 60 countries attended.

In Canada, recruiting international students has not been a priority and they, therefore, lag behind other countries. The country is not producing enough Ph.D.s so faculty are in great demand. The country is populated with older people and they are not replacing themselves. Students attend university year round since 50 percent of the students work 20 or more hours per week. Canada also has older, returning students and needs to devote more attention to how to serve them.

Globalization affects the life and operation of almost every institution. Its impact will be even greater in the future. In Europe, the European Union funds a program called Erasmus whose major purpose is to promote student mobility. Having spent some time abroad is usually of great value for students once they enter the work force. Global problems require global solutions. If we want experts to deal with these problems, they must be appropriately educated. Therefore, globalization of the curriculum is very important in almost every field of study.

One future trend will be the globalization of regulatory

requirements. Institutions that export education or open branches abroad are forced to comply with several sets of rules and regulations. There are attempts to unify these requirements by organizations such as EUA and EQUIS. However, accreditation by these institutions is voluntary and often in contradiction to the state level accreditations of individual countries.

On this subject, Dr. Jan Rebró said:

> At City University of Seattle, there is a combination of local and foreign faculty, faculty exchange programs, faculty rotation, visiting faculty, and projects that require faculty from different countries to work together. Students have many options to gain a foreign experience: study abroad, internal student mobility at the local tuition, summer programs for academic credit, Erasmus mobility program but not all schools in Europe accept the credentials of other institutions so students may have to repeat courses, and online courses with students from many different locations of the world taking the same course whereby discussions of a concept evoke different reactions in different parts of the world.

To summarize:

- There was general agreement that globally there is an increase of participation in internationalization efforts, such as student and faculty exchanges, but also dual degrees, branch campuses and other innovative ways to internationalize and provide students and faculty with valuable experiences and preparation for the globalized world. Universities need to increase their participation in internationalization but maintain attention to national and regional values.

- There are different opinions regarding what globalization is and what it is not. It was evident that globalization has both positive but also negative aspects that institutions should be aware of, as they develop and expand their internationalization efforts.
- Regarding the role of for-profit institutions, there are great differences in various regions of the world: in some cases, there are virtually no for-profit institutions; in others, there are a few, but they are not highly regarded since it is felt that education should not be viewed as a business and that the for-profits take funding from non-profit institutions (as was the case in the United States 25 years ago). However, the position was also expressed that if a for-profit institution reinvests its profits and keeps the highest possible standards of quality, it should not be viewed negatively. There was consensus that quality should be the main concern, whether an institution is non-profit or for-profit.
- Student and faculty participation in international experiences is increasing, especially in certain regions of the world, although inequality was noted in terms of participation by more developed nations as contrasted with less developed countries and students from poor economic backgrounds participate less than those from the middle and upper socio-economic classes. Also, in the United States, female college students participate in study abroad programs at a significantly higher rate than their male counterparts.
- It is necessary to be more innovative in the future, beyond the traditional study abroad opportunities for students and faculty exchange. Examples include truly active international internships and experiences in the community that provide the opportunity for students to get deeper into the culture.

- Both students and faculty are competing nowadays in a global market. Therefore, although the idea of thinking globally and acting locally still is valid, universities of the future will need to address more strategically and more efficiently the development of knowledge and skills that prepare individuals to live and compete not only locally, but in a context that is global. Our future students and faculty need to be ready to live increasingly as global citizens, solve global challenges and face global competition.

## PANEL FIVE

# Achieving Sustainability in the Future of Universities

*Dr. Marlene Ross*
Former Director, ACE Fellows Program (retired in 2009), USA (Moderator)

*Dr. Lourdes Casanova*
Lecturer in Comparative Management, INSEAD , France

*Ramu Damodaran*
Deputy Director for Partnerships and Public Engagement, United Nations

*Francisco Marmolejo*
Executive Director
Consortium for North American Higher Education Collaboration (CONAHEC)

*Dr. Khanderad Baliram Patil*
Vice Chancellor, North Maharashtra University, India

*Dr. David Strangway*

Former President of University of British Columbia, Canada

In recent years in the United States talk about sustainability was about institutional capacity to develop ecologically sound policies and practices. In this discussion, we are using the term in a broader sense, in the sense of maintaining and strengthening universities in light of changing realities and increasing financial constraints. All institutions strive to meet their mission and to improve the delivery of services to students, to enhance the educational experience of all students.

Yet there are increasing challenges. The economy is growing slower than anticipated. Job creation is slow. Unemployment is high. The "new normal" for universities is uncertainty, ambiguity, and the need to change. The economic turmoil is a perfect storm for universities. All resources are affected. Support from government is down. Costs continue to increase. Families have fewer assets to pay for postsecondary education.

The new realities include:

- The "job-less recovery" is expected to continue for about 5 years.
- There is very little money.
- In the United States, 44 states are in great financial difficulty.
- Flat funding is the new "up." Whereas in past years, universities always expected increased funds, in the current economy leaders are pleased with level funding, which in reality represents a cut, given inflation.
- More students are coming from low-income families and need greater financial assistance.
- According to a Pew Foundation study, 75 percent of U.S. Americans think college is too expensive for most Americans to afford.

- Still, 86 percent of university graduates say that university education has been a good investment for them personally.

Recessions have both immediate and lasting impacts on higher education. The cost of doing business keeps increasing. There is reduced revenue AND increases in enrollments since people without jobs return to universities to further their education. Government funding does not keep up with enrollment demand. Tuition and fees increase rapidly and costs shift to students and their parents. It is likely that higher education will have to make fundamental changes in its cost structure that will affect the traditional higher education missions.

As we look ahead:

1. Tough financial times will continue in the foreseeable future.
2. Importance of postsecondary education continues to grow. Economic returns grow and the gap in earnings continues to grow.
3. Technology will reshape higher education and may well redefine it. It will increase the speed of communications and there will be an increase in technology-mediated instruction.
4. Concerns about paying for college will continue. Financing patterns have shifted from the government and taxpayers to students and their families in the U.S. and other countries. For example, several countries that charged little or no tuition have increased and/or implemented tuition at public colleges and universities.
5. There will be growing presence of new providers such as for-profit institutions.

The primary drivers of change include coming to terms with a resource-constrained world that has inspired a redefinition of the role of government. Secondly, the nature of the challenges confronting society has changed. We are now dealing with issues that require multidisciplinary and multinational approaches. We can no longer solve these complex problems from a unilateral perspective. A third driver of change is globalization. We are now able to communicate rapidly, the economies of our countries are intertwined, and what happens in one country affects others. To cooperate and compete, students must be prepared as global citizens.

Many changes have occurred already and higher education is still adjusting to the "new normal." Examples include aging of the population, demands for equal opportunity, globalization; a volatile, unpredictable economy; and the widespread use of information technology to alter the way we teach and learn. The three major issues for higher education are access, quality and relevance. Most higher education institutions address the challenges with marginal change, trying to maintain their academic culture and long established traditions.

One example of an innovation is the European Institute for Business Aministration (INSEAD), The  established in 1957, with three campuses in three different countries and cooperative relationships with other institutions. INSEAD emphasizes the importance of languages. Students enter with facility in two languages and graduate knowing three. They can spend time studying on any of the campuses. Questions to be considered include whether the richness of the campuses enables a broader, deeper education or is the experience similar to that on more traditional campuses? Is the focus on academic rigor or is it combined with a responsiveness to the needs of society? As a private institution,

is it reaching out to students who cannot afford to pay tuition? Is the curriculum relevant and up-to-date? It uses more technology in teaching than other institutions in France but students have demanded human, face-to-face interactions.

Another innovative example is the private, non-profit, liberal arts and science college, Quest University Canada, that has no departments and no academic structure. Designed to expose students to major world challenges and to interest them in working to solve these problems, it has students enrolled from 35 countries.

In India, with the second largest population in the world, the main challenge is to give access to a larger number of youth. Only 6 percent of 18-23 year olds had access to higher education until five years ago. This percentage has now risen to 12 with plans to get to 25 percent within eight or nine years. Many students study abroad but that opportunity is not available to those from lower socioeconomic levels. There is a huge social and economic disparity. The universities want students from all socioeconomic levels. Leaders are exploring cost-effective models such as more reliance on distance education. The country is now amenable to foreign institutions opening campuses.

The Indian government has invested large sums of money in expanding educational opportunities but is now exploring other ways to leverage opportunities for students through knowledge creation, innovation, institution and industry interaction, memoranda of understanding (MOUs) with institutions, and working with alumni to increase their role in helping to sustain the institutions.

Institutions in the developing world have significant challenges for sustainability, dwarfing those of the developed world. Demand for quality education is great. The brain drain is a significant factor affecting their progress; students study in other countries and do not return. In Canada, the Canada Research Chairs

were established with funding for 2,000 positions at universities, helping to retain the best faculty.

Recommendations to strengthen higher education throughout the world include:

- Educational institutions need to transcend their location and geography and create communities of best practices for the world at large.
- In a global world, developed nations have an obligation to assist less developed countries build their institutional capacity and encourage graduates to return to their home country to contribute to the further development of those countries.
- Those of us who have been educated must reach out to those who are silent to make a difference in their lives.
- We need to demonstrate passion and focus on people, not the structures and mechanics of education.
- We cannot keep doing the same things and expect different results; change is necessary and inevitable.
- We may wish to consider a universal university where scholars work together to solve global problems. Corporate and foundation funding would accrue based on themes, not to individual institutions.
- We need to build the habit of lifelong learning, shorten university programs, and get students into work situations sooner.
- We need to figure out ways to change the faculty reward system to recognize innovation, encourage faculty to take risks and develop new programs to better meet the needs of today's students and society.

To summarize:

- Universities traditionally preserve knowledge and transmit it from one generation to another. We now are asking them to adjust to massive cultural changes created by many forces including demands from students, a volatile economy, information technology and communication developments, and other factors in the external environment.
- Colleges and universities, particularly public institutions, that do not change to the new funding reality and to better meet student and societal needs will not be sustainable and will likely disappear, either through mergers, purchases by proprietary (for-profit) providers, or closures. All of these are occurring in the United States, albeit in a limited way.
- Most jobs are people jobs and institutions need to maintain a focus on people and help our students develop strong interpersonal skills and both written and oral forms of communication, in more than one language.
- We need to explore innovative ways to bring people from around the world together to solve problems.
- There are innovative approaches being developed throughout the world. A major challenge is how to scale up successful programs and innovative efforts to enable them to be viable in other settings.

# Additional Perspectives

Throughout the two-day celebration of the 50th anniversary of the launching of CETYS University, many of the panelists were interviewed to enable them to share more of their knowledge and wisdom regarding the future of higher education. Their perspectives are summarized below.

## Dr. Ralph Wolff
## President of Western Association of Schools and Colleges (WASC) since 1996, USA

Interview by Cecilia Tagliapietra

### *The University Today*

Universities play distinctive roles in society: generation of new knowledge, defining what society needs to know, helping develop the culture of knowledge. Universities perform a public good, not only through education, but also through their improvement of society.

We need universities to be very good at teaching what students need for the future, not only yesterday´s knowledge. Universities are only doing a mediocre job transforming themselves to prepare graduates for the future.

Research, teaching, and learning in promotion of the common good are the three main functions that universities should provide, and they are doing it collectively as well as individually, changing the lives of their students. The biggest role that universities play is to prepare the next generation of leaders and workers with the knowledge to perform well and a sense of the public good for participation in a democratic society.

### *Challenges in Education*

Financing the cost of education is very significant as are globalization and preparing students for the world in which they will interact, but one of the biggest challenges is that there is a great difference between teaching and learning. Just because somebody

gives a lecture does not mean the student knows it, can apply it and think about it in an ethical way. The challenges we face, beyond any single discipline or individual, are to prepare people to work collectively and solve major problems of the whole world.

Some emerging topics include developing a curriculum that does more than just prepare people for their first job, but prepares people for tomorrow's work; not just knowing how to use technology, but understanding its impact; a commitment to service, to make positive use of the knowledge. Education is a privilege and there are so many people who want it but do not have access to it. It is really important for universities to educate people to provide service to society, to make the world a better place.

### *The Future of the University*

Too often education is seen as a credential, but information and knowledge are changing so rapidly that having a degree will not be enough. We need to be learning our entire lives. The challenge is to create a learning society in which universities do more than just offer degree programs.

Another thing is that we should be very careful about are those people who are experts. We need to shift the role from the leader on stage to the guide that can build the capacity in students to learn for themselves and make ethical judgments. It is a fundamental shift that needs to occur but not all universities promote such curiosity in students to learn on their own.

Technology is transformng the universities with online education. Students can learn more than by just going to class. Universities in the future will redefine the meaning of classes. The technology allows the universities to reach globally, so it is hard to define a place for the university; it can be anywhere.

A big challenge results from learning from each other. Culture is very important, but as cultures interact, what should we keep and what should change? Globalization is not just doing business abroad. What does it mean to become a global citizen? What are the values of a global society? The challenge for universities is to adapt quickly to these changes, the new tools of a global society, and not hold on to the past simply for the sake of tradition.

### *Accreditation and Quality*

Universities should not only worry about what should be taught, but also how to ensure that the students learn what they need to know. A big shift that has happened globally is the shift from the emphasis on teaching to an emphasis on learning.

Across the globe, accreditation is in very different stages of maturity, but over time we will have standards of international quality. Our graduates are competing globally. How do we ensure that a graduate in Ecuador has the same skills as a graduate in Texas?

Another problem: how do you assess beyond the test? It is hard to test for creativity, leadership, innovation, or the capacity to think differently from the traditional way.

Transparency is another big area. We need to make results known in a way that they make sense to the public. The public not only wants to know if an institution is accredited, but also whether it is meeting accepted standards of quality. We must learn to articulate what quality means to the public and define it in ways that demonstrate its multidimensionality.

Accreditation requires a major transformation, not only for improvement, but to ensure quality, define it, and evaluate it. We need to build systems that allow us to assess the impact on the student.

There is also the do-it-yourself learner. There are websites where you can download lectures and speeches from many universities. There is also a group called the DYU (Do it Yourself University). Increasingly students are able to learn on their own; they do not need to go to a specific class at a specific institution. Why couldn't a student put a portfolio on Facebook and have experts evaluate it? Suddenly the student has a system that is independent of any university or accrediting agency. Employers today want more than just a graduate from an accredited institution; they need quality indicators. Something else emerging, in addition to accreditation, will help evaluate credentials or capacities to perform certain jobs.

**Dr. Lourdes Casanova**
**Lecturer in Comparative Management**
**INSEAD, France**

Interview by Alberto Gárate Rivera

## *The University Today*

The university is a center of knowledge and until recently, the teachers were at the core. Thanks to the Internet and technology, that has changed completely. One example, when a professor was teaching a case study in class at my university, I was director of the program and had to be present in many classes. I saw students sending messages with their phones. It turns out that they were sending the resolution of the case by cell phone to their peers in class.

We still have a role in transmitting knowledge. Academics have a great advantage of being temples of knowledge. We often say that knowledge centers know more than us. Yes, but often they have a political tinge the consultants are interested in selling. The academic world that preserves its independence is what makes it unique. But technology definitely is presenting a challenge to the authority of the faculty as possessing the knowledge.

Education in this century, in this new millennium, is more important than ever and continuing education is very important. Our programs probably are going to have to be reduced in time because the demand for different skills in our students is changing.

The important thing is that there is a paradigm shift: the world is becoming multilateral. We are getting better institutions in the emerging world, in Mexico, Brazil, China, and India. You will see

a big change, because Mexico does not have to look only to the United States but can look elsewhere such as to Brazil and China.

### *Trends*

Trends include the increasing role of technology and the issue of sustainability. We see initiatives such as the "TecMilenio" from TEC de Monterrey that had been the quintessential elitist institution in Mexico and Latin America. They realized that was not enough, they had to respond to social demands. The technology allows us to examine and evaluate efficiency and quality. On the issue of quality, the University of Sao Paulo is a public university that remains among the best in Latin America. Again, the TEC of Monterrey has been a leader in adapting technology. The University of Oxford founded 800 years ago continues to have a reputation as one of the best in the world. Why would it change when things are going well?

There is a lot of innovation in schools in the region. The university is to teach and make a contribution to society. We are definitely returning to the origin of the university.

### *The Future of the University*

One anecdote: More and more we advise the student not to bring a laptop, or iPad or iPhone or anything. Why? Because it happened to me and many teachers that the student raises his hand and says, "That information is wrong. I just found the right information on Google or Wikipedia or wherever." This is good because we are challenged. The student is telling us to

catch up, do not report on a study from 20 years ago that may or may not be valid.

In Latin America, research in science and technology is still funded by governments. The private sector has not invested in innovation and technology. Another great challenge that we encountered in the Latino Innova project is that the university does not work with the private sector. The university needs to work with the private sector. When resources are limited, we must join forces. Obviously we need to balance between the need to investigate for the long term to achieve the research that will change humanity, but also to focus on issues relevant for today, and for the short and medium term as well. The private sector has to be part of the solution. We are in a time when the private sector is under suspicion, like governments, like universities. There is a huge mistrust which must be converted into trust again. We must engage the private sector to help fund research and scholarships for students who cannot afford the tuition of private universities.

**Dr. Antonio Flores**
**President and CEO**
**Hispanic Association of Colleges and Universities,** USA

Interview by Alberto Gárate Rivera

## *The University Today*

Institutions tend to differ from each other by having their own identity as much as possible. There is a very strong need for universities to have international perspectives by providing more opportunities for students and scholars to study and experience other cultures, countries and languages.

Universities are using more and more technology as part of their professional development. Sometimes in a systematic way; sometimes not, but each wants to add to what it has to get a stronger technological infrastructure.

There is a more open competition among institutions to meet student demand. There is the for-profit sector, which is emerging very strong, and the non-profits. With more awareness of competition, institutions have become more innovative. But the competition can also be bad, because sometimes it interferes with collaboration. For example, in a state or region, if there are a number of institutions with a similar academic offering, why not integrate some functions to allow them to save resources? They could create a common admission system, a single form that could serve multiple applications so the student does not need to complete three, four, or five different forms.

All universities are recognizing that they need to improve their overall quality, not only the curriculum but also the teachers and the way they present the content.

### *Quality through Accreditation*

This is related to the search for excellence, because it is not just that you know you are excellent, you have the mark of excellence provided and acknowledged by an agency, an independent organization. Accreditation is here to stay.

The U.S. model is well known. There are six different regional associations, a national council, and the Federal government recognizes them, but has no direct authority over them. They work independently as long as they fulfill the requirements the Federal government has defined through the Department of Education.

### *The Future of the University*

Universities will be more internationalized with multinational or binational accreditations. It will be more important for graduates to know another language. One of the major failures that have occurred in free trade agreements, including Canada, Mexico and the United States, is the lack of a human component that focuses on education and health. Unfortunately, the approach has been merely business.

This has had a very negative impact in Mexico. For example, in the field of agriculture and farming, there have been a lot of people who have lost their jobs and, thus, have been forced to move to the United States. Many of these people get sick or deported and then return, so there is a constant export and import of problems.

There will be more use of technology, computing, and telecommunications. The universities of the future will have to adapt to changes, because the competition will force them to do so. Technology will stimulate and will change the social context of universities.

**Dr. Marko Forsell**
**Senior Lecturer and Head of MBA programs**
**University of Ostrobothnia**
**Centre of Applied Sciences in Finland**

Interview by Cecilia Tagliapietra

## *The University Today*

Universities are places where knowledge must be created and disseminated to other students. Universities have a higher purpose to educate so people at universities have a general level of knowledge but also must be able to talk about other things beyond business or science. Universities have to prepare students to become full members of society, so they can embrace democracy and advance democratic ideas.

Economic funding is a huge problem. With the global crisis, funding for all institutions has declined. The government provides less money for education, so we have to do more with less. In these situations, especially in Finland, universities are starting to operate as a business. If businesses are contributing more money to universities than the governments, then who do the universities serve? The way we resolve this issue will determinate the future of universities. In Finland all universities are owned by the government and education is free so everyone can get a college education regardless of their socioeconomic status.

Quality of education is a big issue. In Finland, as noted above, all schools are government owned. Accreditation is conducted by the government. In all universities presumably you will get the same quality education, but despite this, people believe that some

universities are better than others. Some people still believe that there is only one good university in Finland.

With the technology today you can get online degrees, even do a whole Master's online. How do we know if the person doing the online Master's degree has experienced and achieved the same quality of knowledge that a person who is doing it in person? With technology, the way we teach has changed. Teachers now guide the learning process. A big question with technology is how to use it to get the student to learn?

The second issue is team teaching. We are used to the idea of having one teacher per course, but that is not true or should not be. We may need different kinds of teachers for various courses. We need collaboration with people teaching together, to prepare our students for global and multicultural approaches.

### *The Future of the University*

Universities should create knowledge and disseminate knowledge, and the main purpose of universities should be focused on student learning. Universities should recognize that they have other obligations; once they create new knowledge, they must work to bring out new ideas. The university should try to approach the idea of truth and reason as much as possible and pass on knowledge to new generations so that they can create new knowledge themselves by building on prior knowledge. Universities have existed for a thousand years, and will be here for a thousand years more, but in what form is hard to say.

There are new technologies and different types of computers, and we will create a future that will have a lot more technology and increased access to information. The biggest change will be

changing the learning process. Universities will continue to exist but learning will be situational, in which you learn what you need to learn in the time you need to learn it – "just in time learning." Processes will change but knowledge will remain; it will grow, and only the way to learn will change.

### *Research in Universities of the Future*

The importance of research in universities is tremendous, one of its most important responsibilities. There are universities that do basic science research and there are applied research universities that work with companies to disseminate information to create new technology. Research is one of the most important reasons for the existence of universities.

Professors should be funded by independent funds and they should be allowed to study whatever they want. We know from the past that people we called crazy often were those with more creative ideas. So teachers should be independent and do the research they want, and that is the best way we can serve the university and society.

**Doug Fraser**
**University of Southern Queensland**
**Director of Springfield Campus, Australia**

Interview by Teresita Higashi

## *The University Today*

I see a schizophrenic sort of personality within the universities: online teaching and teaching on the campus. Students will determine what is best for them. The students are frustrated when technology is not used in the classroom. When classes are recorded and students can get them online, students disappear from class.

With online teaching, classes are very flexible, very enjoyable, especially if you have a job. However, universities need to consider how to use technology for the socialization aspect typically experienced in on-campus education.

What students want is quality; it does not matter if it is online or face-to-face. Just because you go online should not mean you get poor quality.

## *Problems in Universities*

You find that most faculty members are from a different generation than the majority of the students. We have to change the expectation of those lecturers and the behavior of the students.

Technology is coming so fast and in so many directions. Universities are trying to reintroduce the concept of deep learning. If you want the students interested in the class, it will have to be

very entertaining. It will force the interaction with technology to improve the face-to-face quality.

A great benefit of technology is the simulation —real world activities in a simulated environment. It could help people to engage more and learn more. It is a completely different experience for every student; everyone learns something different.

Many lecturers get their job because they have a Ph.D. Many do not have teaching qualifications; just a few do in Australia. They continue in a classical style of lecturing, instead of doing something different, something innovative.

The University of Queensland has a research institute and we are trying to get funding from the government to create a larger one.

Getting people to understand the introduction of technology is fundamental. We need very good models, not just about how to produce a video, but how to use social media.

### *The Future of the University*

We used to do the evaluation of the quality of the courses on paper in class, but it took a long time. Then we managed to get students do it online. The response rate was approximately 5 percent. We have a fantastic system, but we do not understand the psychology of the people interacting with it.

Another issue is the quality of the materials. Just because something is online does not necessarily mean it is good. We need a lot of quality control about the websites the university is using with students (and that students are using on their own). The institution needs to understand that if is not getting its quality right, they will not have any students.

In Australia, universities are self-accrediting; however, for professional programs they need to get the stamp of approval from an outside body. There is no federal accreditation, but there are very tight controls within the university.

Our biggest competitor is the online University of Southern Queensland courses. It is the future of education. The students have the choice to go online. If they want social interaction, they can do some things online, but there is always an escape to face-to-face. Some of our students do their first and second years on campus, and then become independent learners online. Some students shift to the online course because going to class is a pain for them. To take online courses requires more discipline, and some students are not ready for it.

In Australia, 70 percent of the students work. They are so busy, so the ability to relax at the university and really take advantage of social networks is lost. The university of the future may be apathetic. I hope not.

On campus education is still a very important part of the future, but it has to be a quality experience. Any on-campus institution will have to justify its existence; it has to redefine the quality of the experience. With all the technology now available and which students enjoy, we have to understand that we need to change.

## Dr. Nancy Marlin, PhD. Provost
## San Diego State University, USA

Interview by Teresita Higashi

### *The University Today*

Public and private universities are very different. Public universities have two commitments: high quality education and accessibility. We are concerned that students from all groups, socioeconomic levels or ethnicities, have access to the university, especially students from those groups who did not have access in the past.

As a public university, a major concern is funding. We receive over 60,000 applications annually and we can only enroll 6,000. We have great student demand but we cannot admit them all because we are funded by the state and the state has been decreasing its support. As a result, tuition has increased for students. Higher education remains a wonderful investment in the students' best interest. Students who come from low socioeconomic backgrounds often think they cannot afford to go to college, so funding for access has been a very difficult challenge.

### *Is this a Problem Only in California?*

Unfortunately this is not only a problem in my state. In the United States funding comes from the state. There are federal programs that support students from low socioeconomic levels, but most of the funding for state universities is provided by the state government. We joke that we used to be a state-supported university and

now we are state-located, since we are given so little money by the state. As the funding from the state government has decreased, the students' tuition and fees increase, but not enough to cover the true cost of education. Students complain about paying more and getting less.

We have high quality education. We want students to have access to that and we cannot provide it at this time. A concern is that you cannot maintain high quality without resources due to financial problems in California. Unfortunately, higher education is not getting the priority it should have. Everybody is concerned about the economy and jobs, but we need education to create jobs. What makes California great is that we have had a wonderful system of higher education.

### *The Future of the University*

Globalization and technology will increase dramatically in the future. We are committed to not only internationalize the curriculum, but to getting our students abroad to study in other countries. No matter how wonderful our curriculum is and our teachers are, there is nothing as educational as spending time studying and living in another country. We had over 80 percent of our students abroad last year. We have a degree program in international business in which the student spends two years at the University of San Diego and two years at CETYS University. Then the student receives a bachelor's degree from San Diego State and a licenciatura (the Mexican equivalent degree) from CETYS, and they are not only bilingual, but also bicultural. I think that is the future of education. Students must not only be experts in their field, but also must have the confidence to deal with different peo-

ple, working abroad, and feel comfortable with different things, because that is what the future holds.

The technology has clearly changed. We call the students "digital natives," because they never knew a time without the Internet; they grew up with it. They expect everything to be available online. Students do not want to go to the library; they want access to library materials online.

Online education is not only for students who are far away, but on-campus students like to take online classes, as well. They do not want to go to class and want to study at their convenience, so we are working on hybrid courses that are part online and part face-to-face. The students like it and they learn a lot, because they are doing a lot on their own rather than sitting in class and looking at their Facebook.

We have to work with our faculty because this is a different role. Faculty needs a lot of training, because they did not grow up with the technology. Sometimes students know more about technology than the faculty.

We have changed enormously because all of the accrediting agencies have changed from emphasizing traditional teaching to learning outcomes. It does not matter if I teach a great class, if the student does not learn anything. Now what the students are learning matters, what are they able to know and do from taking the course. This is what employers want and what students need.

We must ensure that research is connected to student learning. For example, the best learning occurs outside the classroom, when students are working in their labs or supporting a faculty member on a research project. Our university is recognized nationally and internationally for its research, but what we want to do is ensure that this is connected to student learning.

Globalization has to be part of education, but also there must

be a local commitment since we exist to serve our communities. You have to think globally and work locally to ensure the students in your region have access to education.

### *Future of Quality*

Right now the traditional universities are not having problems with accreditation; we like the standards. They are rigorous, as they should be. We have an emerging group of higher education institutions in the United States called "the for-profit universities." Students take out loans and get grants to go to those institutions, often very expensive, and then the students are not able to finish or they get a degree that perhaps is viewed as worthless. For accreditation, how do you really differentiate between institutions where they are taking the money and giving it to their stockholders? It is a very different model. We are non-profit; we take the money and use it to pay faculty, staff, financial aid for our students, and research. We are talking about some institutions that, I believe, should not be accredited, but how should we differentiate?

**Dr. Álvaro Romo de la Rosa**
**Secretary General-Elect**
**International Association of University Presidents, USA/Mexico**

Interview by Alberto Gárate Rivera

## *The University Today*

The university is currently at an important crossroad due to the difficult global economic situation. It requires skill, foresight, and planning to keep an institution viable in today's world. That is one of the major current challenges in both public and private universities.

We cannot keep relying on just the traditional exchange programs from 10 or 15 years ago. Universities should be the first to innovate. The future of true internationalization of the university will include dual degree programs and programs that allow students to study or practice in other companies and countries so they will be prepared to compete at a global level, not just locally. Now anyone can be placed in a company anywhere in the world and the university has to prepare students for this. The market is now global and will be even more so in the future.

## *Trends*

Part of the responsibility of universities is to work to lessen the gap between large and small universities and those who have and who have not economic resources. There are universities with

proactive leadership and they know what they need to do. But there are large inequalities and international classifications follow certain criteria that provide seals of quality to universities that have major research capacity, a great impact on a country, and often they do 80 or 90 percent of the country's university research. Universities like CETYS may use internationalization as a lever toward highest quality to provide our faculty the opportunity to become better researchers and also support our teachers to obtain the doctoral degree required for a first class university.

Quality and evaluation systems are essential, but not only the evaluation of teaching and learning, but also all other systems, administrative and student services. This assessment must be used to recognize what can be improved in order to follow the path to excellence. It is also important to assess the use of technology and to have appropriate accreditation standards in order to continue to make progress.

### *Faculty in the Future*

There have been big changes. With the advances in technology, today students have access to different learning resources allowing them to ask questions at anytime, something that they could never have done before. The professor must adapt to the use of technology.

In every culture the changing role of the teacher is different. There are some countries where the professor's role has not changed very much. The faculty member is still a figure of respect and authority, someone a student would not dare to challenge. In some western countries, a professor is sometimes challenged in front of a whole classroom. That does not happen in eastern

countries like Japan, Korea and China, where the teacher's role is also changing, but in different ways.

### *The University of the Future*

It is important to provide the opportunity for international mobility for professors as well as students. It is an experience that changes and enriches a person's perspective, making it more international. Faculty could establish links with colleagues that would yield opportunities for collaborative research and the generation of new ideas.

**Shao Jin, Vice President**
**Jinling Institute, Nanjing University, China**

Interview by Alberto Gárate Rivera

## *The University Today*

China's society is transforming. The university not only is for the development and transmission of knowledge but also is an influence on the culture. During the past twenty years, the number of universities has grown dramatically.

People who are dedicated to education in China are focused on the same issues as elsewhere in the world. Most universities have similar challenges. Quality is most important because society today demands high quality from all universities. Students and parents expect, indeed require, the university to have very good teaching.

There are fewer students so quality has become increasingly important. Long ago, the Chinese government began to control population growth. For example, in my parents' generation, when I was born, they could have only one child. Now it has changed a bit. If the parents are two only children (each from a single child family), they can have two children, not just one.

University professors in China agree that the quality of teaching is most important, but each one has his/her own way, his/her own style of teaching. For Chinese teachers, freedom is very important, but we are not so free. The salaries of teachers are in accordance with the quality and they are accredited in each subject.

### *Accreditation*

There are two types of accreditation in China: one is more general, at the institutional level, and is conducted by the government every four to six years, and another is more dedicated to careers (professional, program level) and is specific, conducted by the universities on their own. Chinese students care about accreditation in the United States because the U.S. universities are the ones that attract the attention of Chinese students. Many want to leave China to study in the U.S. When we set up teaching standards, the university asks us to study the credentials of U.S. representatives and careers in Japan.

### *The Future of the University*

In 20 years, the universities may not keep their missions in this hectic world. There are many problems and concern that universities may lose the spirit of educating people. In China now, titles are very important and the best students want only a title, not to study, learn or accumulate knowledge.

**Dr. David Strangway**
**Founder, first undergraduate liberal arts college in Canada**
**Former President of the University of Toronto**
**Former President, University of British Columbia**

Interview by Cecilia Tagliapietra

## *The University Today*

In Canada, there is a tendency for the universities to try to be the same as each other. They want to be like the best universities, and the best universities are always the ones that do a lot of research. Thus, universities in Canada focus on research projects and in the process, they have lost some of the attention on the undergraduate students who, consequently, are not getting the kind of education they should be getting. Of course, this is not unique to Canada. We have focused so much on research, and research gets more and more specialized; the more specialized it gets, the less you know about anything other than your specialty.

So now you ask yourself, if you are going to be an undergraduate student and you are not planning to go on and earn a Ph. D. and be a professor, why do you have to become a specialist in some narrow part of physics or some very narrow specific aspect of chemistry? Today you have to begin to understand the dramatic issues that the world is facing. Universities are organized into departments that get ever more focused and ever narrower to get to a higher degree of specialization. But most undergraduate students do not need that. Most students need a really broader look at the issues of the world around us, and then they can decide at the graduate level what kind of specialty they want to study. For

the sustainability of universities, you have to think about how to educate young undergraduates to gain a better understanding of the world around them.

### *Challenges Facing Universities*

I spent my childhood in Africa, in Angola, because my parents were medical missionaries and they created a hospital and dedicated 40 years of their lives to help the underprivileged. I am currently doing some work in Angola encouraging the development of science and technology.

If we have problems in the U.S. and Canada with how universities are going to cope with the financial difficulties, think about a place like Angola or the Congo or any of the sub-Saharan African countries and the millions of young people who have no chance to become educated. If they do get a chance, they go to the United States or Canada and they do not come back to their home countries. Think about what the issues are in the developing or less developed parts of the world, a real crisis for the future of universities.

Today they should be educating doctors in those countries, but we send them money so they can buy milk to help babies. To really help the babies, we should help get the doctors that they need to deal with the various health problems they face. There are other parts of the world in really tragic circumstances in terms of building the capacity to build institutions to address their problems.

I get a little happy with the young faculty members and I get quite unhappy with the old faculties. As far as I can tell, the young faculty say: "My attitude is yes, I need some financial support but I need it so I can help my country." The older faculty members say:

"Yes, I need financial support but I need it so I can do what I want to do." There is a change in the culture that is taking place and I am hoping that the young faculty, the students and the changing culture of the students will drive the system in the direction that it needs to be driven.

The young faculty members are good in their fields, but at the same time they are quite willing to sit down and talk with people in other disciplines and try to solve the problems in an interdisciplinary way. They can not only talk to each other but also work with each other.

My last occupation was to create a new university that is small and has no departments. We have 25-30 faculty members with about 400 students. During their first two years, students take 6 courses in social and human sciences and 8 courses of basic science and technology subjects so they got a good broad exposure to what is going on across the spectrum. In their last two years they do not complete a major but they pick an important problem and they work with the professors and other students and they take courses that address the problem.

### *Accreditation in Universities*

The quality of education is very important. In Canada, we do not actually have an accreditation system. Canada's Constitution states that education belongs to the provinces, not to the federal government, so we have no federal government presence in education. We have some form of accreditation in each of the provinces, but the quality control largely comes from what we call the Academic Senate, from internal processes. It also comes from the fact that if you do not run a good program, you are not going to

get students because that message gets around pretty fast. I am not opposed to accrediting systems but I worry about accrediting systems being very rigid. It could be hard to experiment with things that do not fit your accreditation process. You have to be very careful that these systems encourage diversity and differences since you want many different kinds of institutions to serve different proposes. I am also worried about driving too hard too fast to push everything to the highest level of quality and in the process, unintentionally perhaps, reducing access.

**Ing. Luis Eduardo Zedillo Ponce de León**
**Managing Director, Council for Higher Education Accreditation (COPAES), Mexico**

Interview by Luis Enrique Linares y Alberto Gárate Rivera

## *The University Today*

One of the challenges facing all universities in the world is to demonstrate the quality of their programs. I am not talking about the rankings. All universities whether they are private or public, must have external groups or specialized agencies attest to the quality of their programs. The training of young students is becoming more competitive and graduates need to perform better in their careers. The issue of accreditation is growing tremendously. Officially, in Mexco, it began eleven years ago with the creation of COPAES. However, even before, there was a history of observing how other countries introduced mechanisms so that agencies outside the university itself can vouch for their programs. This is how accreditation began.

In Mexico, only about 60 percent of students nationwide who complete an college/university application can be accepted. All institutions have this problem. They cannot accommodate all the young people who apply for entry. To address the issue of access in Mexico, there should be increased long distance virtual education. It has always existed, but today ICT gives us the ability to be more successful. We need to expand coverage but with quality.

### *Globalization and Technological Development*

The issue of mobility and the internationalization of universities is a common theme. Educational institutions here in Mexico can have a real academic exchange in science and technology with other universities, particularly the United States. A young person of any country can spend one, two or three semesters, or complete his/her education at a university in another country. This has many advantages.

One of the requirements to obtain research funding is to have alliances between educational institutions on very specific projects, including innovation or technological development. Globalization allows alliances. I can make alliances to carry out specific work with other universities and raise funds for this to be accomplished. That's a great way to do research. Since we are able to do only limited research at some of our institutions, we have to collaborate with other universities, nationally or internationally.

### *The University of the Future*

Respect for the university's origins and its philosophy is what will save humanity. Today we have many problems because we have not understood the word "respect." We have no respect for what others do, have no respect for life, do not have respect for many things. Universities in the coming years will be global universities. Because of communication technologies we have today, I can now work seamlessly with an engineer from India or China. Long distances are shortened and I can work with other groups anywhere in the world.

Universities are an open system, an extensive communication network, developing common things, working on their community or the world community. Our problems are similar. The challenge is to preserve what we have -- the environment, the sustainable development issue occurs in all universities, alternative fuels, increasing the supply of food, to get more done in less time, to optimize processes. These are the challenges facing everyone. The university of the future is global, worldwide.

The professor of today and the future needs to do research; the professor needs to learn to communicate with other professors, and be current in the information and communication technologies to maintain authority with the students. The teacher needs to remain constantly updated and must continue lifelong learning. You cannot use your notes from 20 or 30 years ago even if the principles are the same. The professor needs to keep current with new

# A Postscript

The panel sessions and the interviews captured in this chapter reflect rich, diverse ideas and concepts from our colleagues, guests, and strategic alliances from around the world. While it was evident during the academic sessions that there are some differences across regions, there were many more similarities and common elements that we all share.

Higher education is essential for the economic and social development of all countries and for the well-being of the people. Best practices in education do not have any geographical boundaries and we were exposed to new ideas and practices that we can consider putting into operation at our own institutions. A focus on quality and evaluation systems at colleges and universities is not only important but imperative. There is clearly a shift from emphasizing teaching to a focus on student learning and the need for continuing education for faculty.

Funding for higher education is a concern in most countries, particularly for public institutions, exacerbated by the current economic challenges. Most higher education systems also struggle with issues of access. In many countries, there is more

demand than can be met by existing institutions. New technologies provide the opportunity to accommodate this unmet need. Around the world, countries are developing online education for a variety of reasons—to meet unmet student need, satisfy student demands, better meet the needs of working students, cope with financial challenges, to name a few.

Globalization was a common theme. There was agreement that students need to have more international experiences in order to succeed in this global world. It is important to be innovative in creating experiences for students and faculty that go beyond traditional study abroad and exchange programs.

It is our hope that the ideas discussed in the panel sessions populated with higher education leaders from throughout the world will lead us to improve and innovate at CETYS University and at higher education institutions in the State of Baja California and throughout Mexico. Indeed, it is our hope that all of the individuals from the many countries and higher education institutions represented at the symposium also learned from the sessions and will implement many of the ideas in their home countries and institutions.

I extend our sincere thanks and appreciation to all who attended the symposium and contributed to the launching of the yearlong celebration of the 50th anniversary of CETYS University.

*Fernando León García*
President
CETYS University System

# Developing Cetys in a Global Context

*Dr. Fernando León García*
*Dr. Alberto Gárate Rivera*

CETYS University System

*Utopias are the pillars which hold the fact that we regard education, from different points of view, as relevant, investing a great amount of resources in it, hoping to extend it to all so they receive its influence for a certain time.*

J. Gimeno Sacristán

# Introduction

Economic and political developments at the international level in the 1990s created conditions for some universities to search for networks and alliances that were unpredictable in the past. In the case of North America, the Free Trade Agreement also referred to as NAFTA (1994) was one of the factors with the greatest impact on colleges and universities. The emergence of the European Union and the priority placed in higher education also had a profound effect. Both events, coupled with the phenomenon of globalization generated opportunities that universities, such as the CETYS University system, have been taking advantage of since then in a peculiar way.

This chapter discusses the recent history of Centro de Enseñanza Técnica y Superior (CETYS University), regarding the strategies to join the global context of higher education marked by increasing competition and more demanding standards of quality. In the search for partnerships and the strengthening of its institutional development, four topics are described: the internationalization project that begins with student mobility, faculty development, international accreditation processes, and

technology. Their modern roots begin in the 1990s. Subsequently we profile the trends that the institution will be following in the coming years, contrasting the guidelines and paradigms of higher education in the first decades of the 21st century with the core elements of the long range plan called CETYS 2020.

# CETYS University and Academic Mobility as an Internationalization Instrument Within the North America Free Trade Agreement

The North American Free Trade Agreement is an alliance established between the three countries of North America: United States, Canada and Mexico. One of the main objectives of NAFTA is to encourage trade and the flow of goods and services through fair competition. NAFTA was negotiated in 1992 by the governments of George H.W. Bush (USA), Brian Mulroney (Canada) and Carlos Salinas de Gortari (Mexico), and went into operation in January 1, 1994, once approved by the various legislative chambers, while Bill Clinton was President of the United States.

At the beginning of that decade, CETYS had roughly 2,500 students across three campuses (Mexicali, founded in 1961; Tijuana, in 1972; and Ensenada, in 1975), three educational levels (high school, undergraduate, and graduate studies), nearly 350 full time and adjunct faculty, and academic programs in Engineering, Business Management, and Social Science.

In those initial thirty years of existence (1961-1991), the CETYS University System had several features that defined its identity (Gárate, 2001):

- Focus on quality education, access to talented students, and the development of the whole person.
- The first private university in the State of Baja California and the seventh nationwide.
- Founded and supported by local business leaders, and governed through a board of trustees called Instituto Educativo del Noroeste, Asociación Civil (IENAC).
- CETYS had three presidents during said period: Ing. Fernando Macías Rendón (1961-1966), Dr. Félix Castillo (1967-1977) and Ing. Alfonso Marín Jiménez (1978-1996). The first two came from Instituto Tecnológico de Estudios Superiores de Monterrey (ITESM).
- Among the first institutions in Mexico to engage in systematic institutional self study and planning, as well as faculty evaluation.

As a result of the numerous planning efforts, CETYS drafted the prevailing Mission Statement (1997), whose central statement has remained over the decades, and which reads:

> The purpose of Centro de Enseñanza Técnica y Superior is to contribute to the development of people with the moral and intellectual capacity necessary to participate in a significant manner in the economic, social and cultural improvement of Mexico. Therefore, CETYS seeks to maintain intact those values, in the consciousness of students, which have traditionally been considered as basic for

> man to live in a peaceful society and meet the needs that his laborious capacity allows him (Gárate, 2001, p. 7).

The mission has been the cornerstone of our institutional identity. The philosophy that emanates from this text is humanist. Without being a denominational or religious university, the values that CETYS espouses lead to the development of the whole person and that condition defined subsequent development plans.

The 1990s were years in which CETYS consolidated its mission and structured important development plans. It was a period of challenges and opportunities, a period to question what was being done and its validity. The NAFTA brought changes not only here but in parallel with the emergence of the European Union.

In particular in Mexico, and to a lesser extent in the United States and Canada, is the impact of the NAFTA and what it meant for universities. It is essential to see how the three countries were interested in improving the region as an economic block with repercussions on the nature and operation of higher education institutions. In that sense, we must recognize that CETYS took some actions arising from those circumstances of living in a time and in a given space. As an educational institution, CETYS knew what was happening along the US-Mexico border and in Mexico, but was also open to the impact and benefits that came along came with having a much broader perspective.

During the first part of the 1990s, CETYS began promoting academic mobility in a proactive manner. Many educators see NAFTA as a "fork in the road". A critical mass of CETYS leaders saw this, decided to pursue it, not be left behind, take actions that would add value to our students, and make CETYS distinctive, daring to be different and laying the foundations for the future.

Student mobility was seen as important in a world where communities are increasingly interlinked. Furthermore, students who experience mobility have a broader view than those that remain local ones, not to place what is national at a disadvantage, but to strengthen the difference. The key is to interpret how matters work at a national level, know what is required locally, and what is necessary to compete in the global arena—locally, nationally, and/or across the world.

Parallel to academic and student mobility were academic programs and quality. That meant being open to educational and technological innovation, pedagogical developments, and progress and innovation in the business arena. Indeed, if NAFTA was assuming that for the intended increase in the flow of products and services quality was going to be pivotal, why not think that the issue of quality across borders in higher education was also essential. It was with this framework in mind that in 1993 CETYS organized a forum on the internationalization of quality standards in higher education. CETYS hosted numerous representatives from various accrediting and quality monitoring agencies and organizations from the USA, Canada, and Mexico, to discuss what was involved in NAFTA in terms of higher education and what it meant in terms quality not only within one of the countries but increasingly across borders.

That event was preceded by two historical actions taken by CETYS as it began to pursue internationalization. One relates to the collaboration agreement with Arizona State University, signed in 1990. The second is also another collaboration agreement, this time with California Polytechnic University in Pomona, formalized in April 1991. The eventual impact of this second agreement was so crucial, that in terms of academic mobility at CETYS the institution identifies Cal Poly

Pomona as the beginning (Instructor's Guide, 2005) of its internationalization efforts.

As CETYS increasingly entered into contact and interaction with other institutions in particular from the US, this led preparing for and looking at the classroom environment in a different context—how faculty and students interact, what technology is used, the level of quality, etc. And this raised the level of awareness and significance at CETYS concerning academic quality across borders, in particular in relation to the United States and Canada.

It is without a doubt that CETYS embraced NAFTA and became one of the first Mexican universities to join and/or establish consortia that promoted the mobility of students across North America. Some examples follow:

- The MEXUS Program began in 1994, involving San Diego State University, Southwestern College and CETYS, and provided CETYS International Business students with the opportunity of obtaining a US degree in addition to the Mexican degree (Instructor's Guide, 2006).
- A year later, CETYS joined the Regional Academic Mobility Program (RAMP), which promoted the trilateral mobility of students, and the Conference of Presidents of Universities at Quebec (CREPUQ), which increased the flow of students to Canada.
- In furtherance of trilateral mobility, CETYS was part of a project with US universities (San Diego State University and University of North Carolina, Charlotte), Canadian universities (Bishop's University and Simon Fraser University), and the University of Guadalajara. A few years later, CETYS developed a similar project with California State University, San Bernardino.

All these activities developed in the mid-nineties created the foundation for a much fluid and intense academic mobility that is not only still present and but has permeated what CETYS does. On the one hand, academic mobility is seen less and less as something exotic and elitist. On the other hand, subsequent planning efforts at CETYS have incorporated broader internationalization aspirations as part of the vision, goals, and priorities.

The intensification of European Union efforts aimed at the internationalization of higher education was a development that CETYS was also sensitive to and on wich it took action on. It was between 1995 and 1997 that European universities began to open up for mobility with institutions in Latin America and vice versa. Indeed, it was a very close second moment to the NAFTA that CETYS began to make inroads in Europe. The enthusiasm and momentum among European universities because of Project ERASMUS was pivotal for CETYS to establish contact and initiate bilateral mobility with Spain, France, and Germany. Further relationships followed including Netherlands, Sweden, and Italy. In relation to multilateral projects, CETYS developed one with Germany and another with Finland, both of which involved universities of applied sciences and technology and supported mobility between Europe and Latin America.

## Faculty/leadership development

Mobility took a new turn at CETYS when it proceeded to pursue, structure, and offer doctoral programs for faculty development purposes. Indeed, CETYS designed and implemented doctoral programs in Engineering, Business, Psychology and later, Education, to raise the academic qualifications of CETYS faculty. This

effort involved strategic partnerships with the University of Toronto, Concordia University, United States International University, Arizona State University, and Universidad de Murcia.

This was a key moment for CETYS and the CETYS 2000 development plan. The vision was that in order to engage in the continuing transformation of CETYS, it needed to strengthen the faculty through more doctoral degrees and international experiences. In the mid 1990s less than five percent of the faculty had doctoral qualifications. The prevailing thought then was that the basis for more proffesors with doctorsates, would be its own faculty, consisting of programs designed by the institution, not by importing faculty from outside CETYS with doctoral degrees. More recently, accrediting agencies recommend a greater diversity in terms of doctorally qualified faculty, in particular with respect to where the faculty receive their degrees.

The first program to be offered was the Doctoral Program in Psychology (1996), with a traditional approach in curriculum design and in faculty members. A year later, the rise of two programs embedded in this international dimension began: the doctoral program in Engineering, and the doctoral program in Management, which would later add Education supported through technology.

CETYS had no tradition in the training of doctors but several partner institutions did, and that is what was sought to take advantage of. Among the key contributing universities were San Diego State University, Arizona State University, University of Arizona, United States International University, University of Toronto, University of British Columbia, Concordia University, University of Victoria, Erasmus University in the Netherlands, and the University of Murcia, in Spain. CETYS is linked to those centers seeking to strengthen its training program for doctors,

agreeing that there was no academic base, but understanding that the contact with faculty with doctoral degrees and with experience in research and production of knowledge would bring rich dividends in a very short timeframe.

An interesting feature of the doctoral programs was the opportunity for mobility provided to CETYS faculty. Those studying the doctoral program in Business had sessions in the US (San Diego), Canada (Montreal), and Europe (Netherlands). Students in the doctoral program in Engineering headed to Canada (Toronto) and the US (Tempe). In turn, the doctoral program in Education and Values had a summer session in Europe (Murcia, Spain). This resulted in a very important group of CETYS faculty automatically moving forward in their fields of study, creating a network of collaborators, and in the process internationalizing the university.

Essential to any transformational process is the development of leaders who not only understand the main trends in higher education but who can also affect the change process. In this sense and in addition to the focus of an increasing number of faculty with doctoral degrees, CETYS began participating since the 1990s in the American Council on Education (ACE) Fellows Program. Exposure to key themes faced by colleges and universities, access to senior leaders of higher education in the US, interaction with emerging leaders from across the US, a focused placement at a US university, and internationalization by design are only some of the benefits that a select group of academics and administrators at CETYS have received through the ACE Fellows Program.

## The size of CETYS: Challenge or opportunity to get into the "big leagues" of internationalization?

In the dynamics of an increasingly globalized world, there are internal and external constraints and opportunities. CETYS saw it's challenges as opportunities. CETYS was not a big multi-campus institution or nor did it have the resources (such as, for example, the Tecnológico de Monterrey). But because it is a small university, the opportunity for mobility has been greater. Acting relatively quickly, without the bureaucracy of much larger universities especially public ones, CETYS was able to achieve high impact in a short time. So, its small scale has been and continues to be an advantage.

On the other hand, it has been a challenge to show and convince foreign institutions why they should to be linked to CETYS and to Baja California. Only more recently has Baja California as a state begun to be recognized and promoted in a manner in which other metropolitan cities are already fairly well known: Guadalajara, Monterrey, and Mexico City. These cities typically "sell themselves". In the case of Baja California, there have always been questions such as: Where is it? Why would it be of interest to a particular foreign university? Recognizing this has been an opportunity to highlight what was not obvious. After doing this well and looking for the right angle, the relationships and synergies with foreign universities followed.

As is the case in other matters in higher education, universities have to experiment with alternative models and approaches. Traditionally international education institutions have been more accustomed to seeking a direct one-to-one correspondence. In fact, more often than not there are asymmetries and pursuing the one-to-one correspondence is not going happen and there will be no synergy.

CETYS had to be creative and innovative in terms of what the other institution might be interested in. While student mobility might be appealing to one university, for another it might be faculty mobility. While a semester abroad might be the most attractive feature for a Mexican student, for the student from the foreign institution it might be an internship opportunity at a multinational corporation in Baja California. While for one institution international collaboration might mean offering a program and charging tuition to students from the foreign institution taking said program, for another foreign institution collaboration is about providing value added opportunities that local students might not otherwise have—even at a an extra cost. So, partnerships and internationalization should be approached as something that should bring benefits to all parties involved.

## The importance of continuity in institutional priorities: The case of WASC

During the Presidency of  Ing. Alfonso Marín and in the context of the emergence of NAFTA, CETYS approached the Western Association of Schools and Colleges (WASC) in the early 1990s to inquire about seeking accreditation in the United States. While WASC leaders, including then Executive Director Stephen Weiner and Associate Executive Director Ralph Wolff, were very receptive to the request, they indicated that WASC's by-laws did not make provisions for the accreditation of foreign universities but that there was an openness to work on a parallel process whereby CETYS might become familiarized with WASC standards and processes, incorporate them into CETYS as appropriate, and help drive quality improvement at CETYS. Accordingly, CETYS was

able to send administrators and academics to numerous WASC workshops and conferences. This invaluable experience not only helped CETYS but was used to enrich the accreditation system in Mexico established by the Federation of Mexican Private Institutions of Higher Education (FIMPES).

The continuing contact and support from WASC regarding CETYS' own effort to improve quality led to the eventual change in stance by WASC regarding the possible accreditation of CETYS. Indeed, while during the Presidencies of Ing. Alfonso Marín and Mtro. Enrique Carrillo CETYS continued to benefit in terms of quality improvement with WASC, it was not until 2002, with Ing. Enrique Blancas as CETYS President and Ralph Wolff as President of WASC, that WASC officially approved moving forward with a process that might eventually lead to accreditation.

First came the challenge of proving that CETYS met WASC's eligibility criteria, then meeting capacity and effectiveness reviews to achieve candidacy status, and eventually being granted accredited status in Spring of 2012. This made CETYS the first institution in Latin America to be accredited by WASC and only the seventh in Latin America with accreditation in the US.

This achievement is as much the result of institutional commitment, patience, and hard work as it is the importance of continuity in institutional priorities - and this cannot be overemphasized. From the initial inquiry to reaching accredited status, it took CETYS roughly twenty years and four Presidents.

## CETYS University in the context of emerging higher education trends

The aftermath of a century set by the speed of change and the beginning of another encouraged by the conversion of human-

ity towards a better quality of life, which includes primarily the best use of resources, respect for diversity and care for the environment, in short, to quote Hans Kung (2006), the construction of global ethics, caused a deep reflection on the social activity of the university in the world. The result was the World Declaration on Higher Education for the 21st Century (UNESCO, 1998), which identifies several categories:

- **Coverage**: A demand for higher education and a huge unprecedented diversification.
- **Social Impact**: Strongly linked to the economic and sociocultural development as a way of building the future.
- **Educational model**: Based on skills and lifelong learning.
- Technology development: Openness to new technologies and distance education that improve the way we produce, organize, disseminate and manage knowledge and access it.
- **Great challenges**: Funding, equal conditions of access, staff training, improvement in the quality of teaching, the relevance of the curriculum, establishing effective cooperation agreements and equal access to benefits of international cooperation.

More recently, other works have highlighted some trends that overlap with the UNESCO Declaration. Angel and Connelly (2011) underline the need to be increasingly sensitive to market needs, to adults as the emerging new traditional student, and for a new model for higher education. Of special importance among such trends are technology and internationalization.

Wolff (2009) points out that the emergence of technology and distance education are leading to rapid growth and increased competition in higher education, and that hybrid programs appear to be most effective.

# Cetys University in a World of Utopias

Utopias are emerging postmodern aspirations of what Zygmunt Bauman (2002) calls liquid modernity, a complex, individualized scenario, woven with uncertainties, which seems to leave no room for certainties. Under these conditions, utopias —ways of conceiving the future—become links in which we tend to take hold, under the banner of waiting, of expectation for the futture. This is how paradigms and trends surge, both ways of imagining tomorrow under the condition of creating today the conditions to achieve expectations for the future.

Sacristan associates utopias with paradigms, and states that they "are deep, stable, clear orientations, widely shared by members of a society, with all the nuances and differences wished for" (2001, p. 13). The beginning of the 21st Century created conditions for the development of global educational thought leading to rethink education and find suitable channels for all its stakeholders.

## The substantive functions at the University

One point of the UNESCO Declaration (2009) states that: "The university should develop its three substantive functions (teaching, research and community service) aimed at promoting critical thinking and enabling citizens to contribute to the development and advancement of sustainability".

There is evidence that CETYS has been excellent in teaching. However, applied research has only begun to be developed as the number of professors with the appropriate academic qualifications and experience has been on the rise. Moving forward, CETYS acknowledges all three functions but envisions them intertwined, applicable to all professors with the difference being the degree of intensity that some will have for teaching, while for others the emphasis will be on applied research and yet for others it will be outreach. For an institution such as CETYS, the basis or constant for the three functions will continue to be teaching. Accordingly, any faculty carrying out applied research will be expected to teach and so will any faculty engaged in outreach. The prevailing expectation at CETYS is that in the end any of the functions of the university should come back to enrich teaching.

## Networks of excellence

The Paris Declaration (2009) also states that "The society of knowledge requires a differential growth of the roles within the higher education system, with poles and networks of excellence for research and innovation in teaching and learning, and new approaches to serve the community".

Although we all aspire to be the best in everything we do, one can hardly do it alone. Today's world is one of synergies where alliances, nodes, and networks play a pivotal role. In the context of this reality and the Paris Declaration, CETYS 2020 calls for the establishment of three Centers of Excellence that are intended to be the connecting points for teaching, applied research, and outreach within each major field of interest, integrating them in a multidisciplinary manner, cutting across all three CETYS campuses, and linked to national and international colleges and universities, all aimed at supporting and contributing to the solution of problems that promote regional development. The emerging centers of excellence at CETYS are as follows: Competitiveness (College of Business/Management); Design and Innovation (College of Engineering); and Human and Social Development (College of Social Sciences and Humanities).

## Critical thinking

One aspect of the Paris Declaration is specifically targeted to students. The components of college work should reflect the overall objectives of the university, notably aimed at developing students' critical thinking and independent learning ability throughout life (2009).

Clearly in the global educational discourse, much has been discused about the learning and life of college students. CETYS has been working since the late 1990s in an educational model focused on learning at three specific levels (Instructor's Guide 2000):

- In the first one, the philosophical principle is stressed, explaining an academic concept of education and its purposes, based on a humanistic dimension that highlights comprehensive training.

- The second level refers to pedagogical principles, constituted by the four pillars that Jacques Delors (1996) poses: learning to learn, learning to do, learning to coexist and learning to be.
- The third level includes the previous two and generated a curriculum design model in three parts: the general education field for all students, the basic field regarding knowledge, and the specific field of the curriculum.

This model had distinctive or differentiating elements such as internationalization, entrepreneurship, information literacy, and linkages with the social and production sectors.

Nowadays, it is not enough to talk about aspirations of increasing academic quality; it is necessary to make sure that things are actually happening. The end result is that there needs to be a deliberate concerted effort to make sure that if there is a desired outcome, specific learning activities have to be embedded into the curriculum. Wolff (2009) talks about 21st century learning competencies, as well as the need for quality assurance and accountability. It should be clear that one cannot assume that things happen. The expected outcome must be declared in advance and must be assessed. That is the challenge for CETYS today as it is for most institutions of higher education throughout the world..

## Faculty development and technology

The faculty also has its place in the *Paris Declaration*. It specifically describes that: higher education should give prominence to the training of faculty for delivering the knowledge and skills required for the 21st century. New approaches are required including open and distance learning (2009).

Oblinger (2012) emphasizes information technology as a game changer and driver of innovation that is leading institutions to seek alternative approaches, changing the learning experience, and moving towards learner centered design.

CETYS has always been aware of the fact that by studying a bachelor's degree or doctor's degree, it does not automatically qualify you to be a good instructor. In that sense, there has always been the support for faculty to be better prepared in the pedagogical area. This has happened since the old concept of micro teaching emerged, back in the 1960s. What is more challenging, since time brings changes, is how to lead faculty, especially those that are full-time, to be exposed to a reasonable use of other forms and technologies that allow them to expand the scope of their pedagogical work. Something must be done to acquire those skills, whether it is simply to keep up with advances in the use of technology in the classroom or to move towards the establishment of a virtual campus.

When it comes to a more dynamic and open learning, the idea is not to physically replace faculty with high tech equipment. We are establishing variability and diversity of educational events where it is not all about the physical presence of the faculty in the classroom. There are other ways in which learning can occur, sometimes by means of technology, sometimes through independent exercises. CETYS has a challenge in the technology area. There are at least two perspectives. One refers to the way society functions; work does not always happen with one's presence in the classroom and the ability to communicate, coordinate and work together has to be developed. The other relates to segments of the population that are intended to be served but cannot come to the campus. The point is what can be done about teaching methods so open

systems, the use of technology, and executive formats allow learning opportunities for students with those conditions.

As the institution moves forward with its aspiration of increasingly being able to carry out applied research and outreach projects, a greater number of its professoriate will need to have doctoral and/or terminal degrees in their respective fields.

In his widely recognized book *Good to Great*, Jim Collins (2001) points out that leaders of companies that go from good to great start not with "where" but with "who." They start by getting the right people on the bus, the wrong people off the bus, and the right people in the right seats. In the case of CETYS, we believe that many of the right people are already on the bus. Accordingly, the institution's strategy is to continue improving the pedagogical skills of its faculty as well as support a select number to pursue and/or complete their doctoral studies. In addition, CETYS will emphasize doctoral qualifications in new faculty hire. By the year 2020, CETYS intends to have more than 50 % of its full-time faculty with doctoral/terminal degrees. So, the strategy at CETYS will be to invest heavily on its existing professoriate while making sure that newcomers fit the desired profile. In the process of achieving such a goal, CETYS will also continue to invest in the Distinguished Chairs and Visiting Professor Initiatives, whereby experienced professors from abroad will engage teaching, applied research, and outreach projects alongside CETYS faculty.

## Internationalization trends

There is another emerging paradigm that runs parallel to the trends of the World Declaration as well as among numerous other reports and publications.

Bandari and Laughlin (2009), Egron-Polak and Hudson (2010), Bandari et al (2011), and the Center for Internationalization and Global Engagement (2012) all share the perspective that internationalization is on the rise but also indicate that data reflects differences across regions, student mobility is still of high priority, internationalizing the curriculum at the home campus is of increasing importance, there are a growing number of strategic partnerships with foreign institutions and organizations, and there is an expansion of international student recruitment and staff.

León García (2012) reflects on the different perspectives that exist regarding internationalization, which among others include: student mobility, programs/campuses abroad, higher education hubs, and universities with US accreditation. That said, the center of attention should be on promoting global learning among students (Green, Olson, and Hill, 2006).

While CETYS has been promoting student mobility since the 1990s, as part of CETYS 2020, CETYS will continue to expand opportunities for student mobility, seeking more dynamic and shorter term models that are more accessible to students from a time and finance perspective, structure more double degree/certificate options, promote faculty mobility, and embed internationalization into the curriculum thereby providing 100 % of the student body with the opportunity to engage in some form of internationalization as part of their experience at CETYS.

Several higher education experts were from throughout the world were invited to a panel (CETYS, 2010) and the following trends that were clearly identified:

- For internationalization to occur, quality systems must be present.

- The university has to care about quality, but it must also think about how it can help most people gain access higher education.
- In the coming decade, students will have technological tools that we cannot even think of today. Training is required for the access and attitudes to enable students to discern between right and wrong.
- Universities should think openly; to be competitive they have to be aimed at creating a community that is local and global at the same time.
- Educational institutions that move towards a learning community embrace change, and have used systems and feedback. Commitment and passion (individual and collective) are critical for that to happen.
- One of the best decisions for a sustainable community is that students are well educated. One of the most important realities is that the future will move quickly: it comes and we don't even see it coming. People doubt global warming, but it is happening. There is no denying it. Universities must take the lead because politicians will not do it (2010, 8.9).

Several points addressed in that event with international experts have been discussed in this chapter and thus provide some guidelines for conclusions.

CETYS has proven that the design of a university has its place in the field of national and international higher education. Global dynamics now lead us to continue to serve society but beyond local matters only. Consistent with that, CETYS intends to transcend beyond where it stands and what it has done in the past, clearly being responsive to and in a global framework.

Beyond the local, regional and national standards that are being met, CETYS firmly believes that whatever is done must be assessed and found to be at or above the international area. In that sense, quality standards until further notice are in the United States. CETYS sought and achieved accreditation in the US. There are those whose focus will be on believing that WASC found that CETYS met certain quality standards. But behind this important effort is an ongoing process of reflecting, analyzing, validating, reviewing, and continually improving what CETYS does, mainly reflected in students outcomes. In other words, what the accrediting process with WASC led to was a permanent cultural change. Change and how we assess is increasingly our everyday practice.

The third aspect that links students, faculty and academic programs are the Centers of Excellence. As these centers develop further, there will be one or more academic programs that through appropriate documented evidence will show an adequately articulated combination between learning, research and social and productive linkages, and are certified and/or accredited by a national or international organization of high prestige. That means that CETYS will always be striving for quality.

CETYS' utopia remains focused in its teaching tradition and humanist vocation. That is its identity. The other side of CETYS, innovation and competition, is subject to the global world, its profound contradictions and but also incredible opportunities.

## *References*

Angel, D., and Connelly, T. (2011). R*iptide: The New Normal in Higher Education.* USA: The Publishing Place.

Bandari, R., Belyavina, R., and Gutiérrez, R. (2011). *Student Mobility and the Internationalization of Higher Education*.

Sewickly, PA: Institute of International Education.

Bandari, R., and Laughlin, S. (2009) *Higher Education on the Move: New Developments in Global Mobility*. Sewickley, PA: Institute of International Education.

Bauman, Z. (2007). *Miedo líquido*. Barcelona: Paidós.

Center for Internationalization and Global Engagement, Mapping Internationalization on US Campuses, American Council on Education, June 2012.

CETYS (2012). Arquetipos 27. CETYS University System Review.

CETYS (2010). Educación superior en el contexto mundial (Higher Education in a global context). Mexicali, B.C.: Laredo Publishing.

CETYS (2000, 2005, 2006). Instructor's Guide.

CETYS (2011). Plan de Desarrollo CETYS 2020 (CETYS 2020 Development Plan). Mexicali, B.C.

Collins, J. (2001). *Good to Great*. US: Harper Collins Publishers.

Delors, J. (2006). *Learning: the treasure within*. Paris: UNESCO Publishing.

Eckel, P., and Kezar, A. (2011). *Taking the Reins: Institutional Transformation in Higher Education.* US: Rowman & Littlefield Publishers.

Egron-Polak, E., and Hudson, R. (2010). *Internationalization of Higher Education: Global Trends, Regional Perspectives.* 3rd Global Survey Report. International Association of Universities.

Gárate, A. (coord.), (2001). *CETYS, Cuarenta años de historia*. Mexicali: CETYS.

Kung, H. (2006). *Global Responsibility: In search of a new world ethic*. US: Trotta.

León García, F. (2012). Internationalization of Higher Education: Trends and Perspectives. IAUP/AUAP Internationalization of

Higher Education Forum, Henan University, Kaifeng, China, September 2012.

Oblinger, D. (2012). *Game Changers: Education and Technologies.* US: Educause, 2012.

Sacristán, G. (2001). *Educar y convivir en la cultura global (Education and co-existence in a global culture)*. Madrid: Morata.

UNESCO (1998). World Declaration of Higher Education, Paris, 1998.

UNESCO (2009). World Declaration of Higher Education, Paris, 2009.

Wolff, R. (July, 2009). 10 Trends Affecting the Future of Higher Education. *World Future Society*, July 2009.

*Trends of Global Higher Education*,
as part of CETYS Universidad's 50th Anniversary Colection,
was printed on September 2012 in the graphic workshops of Grupo Comersia,
Insurgentes Sur núm. 1793, colonia Guadalupe Inn, México, D. F., C. P. 01020,
tel. (55) 5662-1935 (www.comersia.com.mx).
The print run is 500 copies plus leftovers for replacement.