

Unlocking the Global Education Imperative

Core Challenges & Critical Responses

by Gordon Freedman



Blackboard

WELCOME

This white paper, *Unlocking the Global Education Imperative: Core Challenges and Critical Responses*, has been a year-long exercise. We interviewed educational, governmental and organizational leaders around the world, surveyed germane papers and reports, and consulted our own client base, which is spread across 70 countries.

In this report, we will spell out why we think there is a global education imperative, and provide collective guidance for institutional change. Throughout this report, there are quotations from our interviews and from other sources that are representative of our body of findings.

We are highly appreciative of the many people who have provided information and advice. We are also grateful to the institutional and governmental leaders who lent their time, support and perspectives to us. We are all in common cause for improved education, higher rates of student engagement, greater levels of institutional accountability, and national concerns for sustainable economies and social improvement.

While Blackboard Inc. is an education technology corporation, the focus of our effort here is providing a general contribution to the improvement of education and training worldwide.

Gordon Freedman, Author

Vice President, Education Strategy
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There is no question that in the last few years education has gone from a concern of governments to an imperative for change on which the very future of both individuals and nations rest.

“The world is undergoing dramatic and unprecedented changes in this age of increasing globalization. The knowledge and information technology revolution, as well as many growing social and economic trends, have changed how we live, how organizations do their business, and how well countries perform in the global economy.

Key among such factors is the creation of a high-skilled workforce with the ability to access, adapt, apply, and create new knowledge and technologies. National education and learning systems thus play a major role in improving a country’s development and competitiveness. It becomes imperative for countries to create a competitive base not just of physical infrastructure and materials but of human skills on the individual, organizational, and community level. This implies new challenges for developed as well as developing countries’ education and learning systems to educate more, better, and over the lifespan. “ [1]

Kurt Larsen
Senior Education Specialist
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EXECUTIVE SUMMARY

It is clear that the pressures of the information age are very real, and that they cause nations and institutions to rethink how to provide high quality education to exploding numbers of students. The global education imperative, which means that education is as important as anything else for governments competing in the world economy, is quickly becoming one of the top global issues. We are also suggesting that the issue, because of its gravity, cannot be responded to simply by fixing one problem after the other in a sequential manner. There has to be a new approach that is more comprehensive, more systematic, and involving technology in new ways.

The purpose of this report is to provide institutional leaders, governments, and policymakers with a better understanding of the effects of globalization on higher education institutions and, ultimately, to foster processes that systematically address the numerous challenges to institutions brought on by globalization.

Greater education attainment by larger proportions of the population is now a necessity for both individuals and governments. Overall, the demand for education continues to rise, as more students worldwide seek entry into higher education. With such interest in wide access, difficulties arise in providing so many students with viable, high-quality educational opportunities and financial backing to support them during their studies.

- **For governments, corporations and individuals, higher education now occupies a position of importance rivaling the largest issues confronting the world's societies (e.g., health care and defense).**
- **The large increase in education participation, termed "massification," is a likely indicator for improving both national economies and the well-being of individuals. However, massification requires more funding and higher levels of quality in order to serve larger numbers of students.**
- **Without high-quality education for more students, and without better rates of success in education, national economies and individuals will suffer.**
- **The imperative, then, is for educational success, through improved engagement with larger numbers of students, across broader demographic and cultural boundaries.**
- **The financiers of higher education (mostly governments) are beginning to hold institutional leaders accountable for achieving progress.**

Going forward, the systemic changes that are necessary for higher education must be built into institution-wide processes which, supported by systematic technology adoption, consistently serve the various groups and individuals with efficiency, service and visibility. It is also clear that higher education is no longer contained by national borders, it has become a truly global phenomenon.

Tamagawa University's President Obara puts it this way. **"As the cross-border economy permeates to more countries, higher education institutions (HEIs) must train youth who can cope with this new trend. Today many universities here [in Japan] are tuned into current domestic issues, but soon they must bring elements of globalization into their curriculums."**

Core Challenges, Critical Responses

Numerous studies, including the previous Blackboard studies of the US, Canada and Australia, have identified the core challenges to higher education. They are no longer a surprise; they have become part of the on-going dialogue in higher education and policy circles. As we prepared this report, the existing scholarship and fact-finding about the global education imperative did not seem sufficient. Despite the solid work by institutions, government, and associations, something seemed to be missing.

The changes in corporate management, the corporate workplace, and emerging technology now require a new type of worker. This worker needs to emerge from education systems as a knowledge worker, relying as much on creative problem solving and collaboration as on basic labor or professional training. With the changing commercial markets, the ascendant Internet, and the opening of borders, workers can come from any spot on the globe and innovation can spring from any nation, not just the developed ones.

Thus, the global education imperative places higher education right in the middle of the global changes. As these changes are challenging the definition of what higher education means to individuals and to national economies, higher education is largely reacting to these historical shifts, as opposed to leading. By identifying challenges and examining pathways for change, we hope that this report can stimulate thinking and action that goes several steps further.

HEIs, governments, or other bodies funding higher education must address the problems suggested by the global education imperative. But they must also re-organize in meaningful ways, in order to manage new education agendas in a time of rapid change. This will require institutional, cultural, and technological changes to engage students and at the same time account for progress, improvement, and better alignment with economic and social needs.

Technology will play a central role in the further modernization of higher education. Issues of access, quality, and interaction levels can be managed and improved more efficiently via technological tools.

Luis Fernando Rodríguez Velásquez is Rector of the Universidad Pontificia Bolivariana in Colombia. He describes their philosophy in a way that underlines this new approach. **“We are committed to social and human transformation. It is our dream to center our mission on people and thereby contribute to the development and transformation of Colombia. Our ideal is to make the university an institution that is available to students of all social classes.”**

“When our students graduate, they are going to be competing with students from Ecuador, but they’re also going to be competing with students from Korea, Asia, the United States, Canada, England, Belgium and the whole of Europe. If they are not able to compete worldwide, they are going to have a very limited market for their skills.”

Professor Albert C. Eyde
Vice President
Ecuador’s Universidad de Especialidades Espiritu Santo

At South Africa’s University of Johannesburg, “Technology-assisted learning, in our estimation, is a core component of how we train our students to become independent thinkers, to work in a team, to be able to connect with others elsewhere in the world, and to be competitive at the same time.”

Professor Derek Van Der Merwe
Pro Vice-Chancellor & Vice-Principal
University of Johannesburg South Africa

Identifying the Global Education Imperative

The rapid increase in the concentration of time, attention and funds has elevated higher education to a new, higher-order concern for governments, corporations, institutions, families, and individuals around the world. The global education imperative makes it necessary to focus society's attention on how to achieve and measure greater education inclusion, higher-quality learning, and better attainment rates in order to grow economies and improve society.



IDENTIFYING THE GLOBAL EDUCATION IMPERATIVE

In Historical Terms

Three academic leaders at one of the most globally centered higher education systems in the world, the British Open University; put it succinctly when they wrote about education for all and how it relates to strengthening economies. “In an increasingly competitive world, the proportion of a country’s population that has benefited from higher education is becoming a critical factor in the strength of its economy. It is also being recognized that higher education should be available to all who can benefit from it, for professional or personal ends. The imperative, therefore, must be to widen access to higher education as much as possible.” [2]

One common assumption is that successive historical eras demanded more and more education as society became more complex. In the agrarian era, formal education was scarce and largely confined to the upper classes. Learning occurred locally. As the industrial age dawned, literacy and basic math became important. In the late 19th and early 20th centuries, formal higher education blossomed, opening up to more classes of people in larger numbers of nations, in order to support the expansion of industry and commerce. As a result of the GI Bill of Rights, passed at the conclusion of World War II, higher education became widely available in the U.S. Meanwhile, worldwide, higher education institutions opened up or expanded as economies continued to grow.

Globalization, which characterizes our current era, is the almost real-time exchange of information, communication, transactions, and knowledge across national borders. Ironically, it was Cold War research (often conducted in universities) that led to many of the technologies that spurred globalization. We are now in a new era where the flow of information builds the value that was once associated with agriculture, manufacturing or service.

Today, national service economies and our globalized society require higher education or training for most work. Both the work and the education needed to perform it power the world’s economies in a time of worldwide competition. However, the dominance of developed nations is no longer certain in this new world as much more populous nations around the world rapidly develop their higher education systems.

The “Massification” of Higher Education

Along with globalization, rising global population and increased migration have drastically increased the numbers of students seeking entry into post-secondary and HEIs; greatly altering the education sector worldwide. From the 1990s through the present, higher education across the globe has experienced a massive expansion.

From 1990 through 2002 alone, worldwide higher education enrollment increased from 68.6 million to 110.7 million. During this same period, higher education enrollment in developing countries jumped from 29.3 million to 58.3 million. China had an increase of 8.3 million enrollments, and India had an increase of 5.6 million enrollments. [3]

The education imperative – the perceived necessity for increased higher education graduation rates to grow national economies – is leading to the increased numbers of students. Termed the “massification” of higher education, this trend has been noted as “one of the defining features of the late 20th and early 21st centuries,” bringing a radical shift in the way colleges and universities analyze transformation and change. [4]

As a result of the growing numbers of students, the cost to the nation, state or province is becoming progressively more expensive. At the same time, issues and concerns about maintaining the quality of higher education are rising alongside the numbers of students. All of these factors require new ways of thinking about higher education. Colin Walters, the Higher Education Group Manager for the Australian

government's Department of Education summarizes the emerging worldview this way: "The issues are more about driving efficiency and having smaller and more efficient governing bodies that can take advantage of commercial opportunities and recognize that universities these days are quite complex businesses. Operating in several countries, they need to be a bit more like commercial companies and a bit less like consultative bodies."

The positive side of massification has been the widening of learning opportunities and educational choices for the world's growing student population. Some of the results thus far include the growing creation of viable for-profit, private institutions and the adoption of new, online teaching and learning environments. This has challenged traditional education systems to develop innovative programs and new delivery methods in order to stay competitive worldwide. It has also brought about the diversification of higher education budgeting and partnerships, with developing countries increasingly linking with prestigious institutions in the developed world. [5]

In just a few countries, the opposite of massification is occurring, and student populations are declining. Japan, for instance, because of its steadily aging population, is beginning to consolidate its universities as over-capacity looms. The same phenomenon is likely to occur in some European countries and in the U.S. In the U.S., the peak of HEI attendance that is predicted for 2009 will not be maintained. Even with growing immigrant populations, lower rates of U.S. college attendance will cause an overall decline into the foreseeable future. [6,7]

Who Pays for Massification?

As the demand for more and better education continues to rise, the payoff is in higher individual earnings and greater national or regional productivity. Enrollments, however, have risen faster than spending on higher education. The result in many countries has been a move toward innovative financing and student support policies, which, in turn, have mobilized additional public and private funding in ways that better reflect the social and individual benefits of higher education.

In Nordic countries, for instance, increased public spending on higher education is seen as an investment with high dividends for individuals and society. In Australia, Japan, South Korea, New Zealand and the UK, some of the financial burden has been shifted to students. Student loans, common in high-tuition institutions in the U.S., are being introduced in some countries, such as Australia.


In contrast, many European countries are not increasing public investments in their universities. Meanwhile, the universities are not allowed to charge tuition fees. As a result, the European average for spending per tertiary student is now well below half the level of spending in the United States. [8]

D. Bruce Johnstone is a Distinguished Service Professor of Higher and Comparative Education Emeritus at the State University of New York at Buffalo. He is also the Director of the University's International Comparative Higher Education Finance and Accessibility Project. He offered this insight with regard to the changes facing higher education in Europe: **"There is a remaining bastion of institutions offering free higher education. But most European countries have been sneaking, very reluctantly, into cost-bearing. This approach is antithetical to the European social-welfare model, and is being met with enormous political resistance from the traditional, political left and the continent's very powerful student unions."**

THE GLOBAL EDUCATION IMPERATIVE IN ACTION

As the global education imperative expands, the future will require strategic solutions to transform institutions. We know that the imperative itself has become universal, but its application varies by culture, geography and other factors that are outlined throughout this report. Here is a short overview of how the global education imperative is taking root:

- **The European Union (EU):** The European Commission, the executive body of the EU, is taking action on the global education imperative. Education is at the top of its common concerns. The European Commission's Lisbon Strategy makes the knowledge economy a central goal for EU economic development. Meanwhile, their Bologna Process calls for the standardization of degree types. Both efforts are emblematic of the EU's renewed vision for higher education. [9]
- **The "BRIC" or "BRICK" Nations:** Rapidly developing nations with sizable populations and healthy economic growth prospects are also expanding their higher education base in order to be competitive in the global economy. Global economists predict that the so-called BRICK nations (Brazil, Russia, India, China and Korea), will rival the G6 (most-developed nations) by 2050. China and the Republic of Korea, for instance, have each made tremendous investments in higher education to become super-competitive in research and the production of PhD's. China, in particular, is intent on becoming a world leader in higher education. [10]
- **The Middle East:** Middle Eastern nations are rapidly building their higher education capability through independent development, global partnerships and for-profit education operations. Last year, the ruler of Dubai announced a \$10 billion foundation to "support education and knowledge development in the Arab world." [11] About ten years ago, on the outskirts of Doha, the capital of Qatar, a well-funded, 2500-acre, "Education City" was built. Its founders envision becoming "a hub for the generation of new knowledge, and a place that provides researchers with world-class facilities and a pool of well-trained graduates." [12] Likewise, in Saudi Arabia, the new King Abdullah University of Science and Technology (KAUST) "will act as a catalyst for research that applies science and technology to problems of human need, social advancement, and economic development in Saudi Arabia, across the region and around the globe." [13]
- **South East Asia:** Singapore is intent on being an education hub in Asia. Singapore is dedicated to the full integration of technology and online learning with land-based institutions. The Ministry of Education and the Infocomm Development Authority of Singapore (IDA) work hand-in-hand "in order to enhance the global economic competitiveness of Singapore." [14] In Malaysia higher education is a top priority. "Multi-ethnic Malaysia has undergone a massive expansion of higher education, with most universities now under ten years old." Likewise, Vietnam is expanding. "Its higher education system now serves over one million students with 32,000 academic staff." [15]

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- **Historical Alliances:** The United Kingdom and Spain have their own highly developed higher education sectors. But they also maintain education alliances with their former colonies around the world, allowing students to come to the UK or Spain for their higher education. Both nations provide guidance and aid to developing institutions in developing nations. The Association of Commonwealth Universities, based in London, has 500 university members drawn from the UK and the Commonwealth countries of Africa, Asia, Australia, the South Pacific, Canada, the Caribbean, Cyprus and Malta. Its members provide guidance to their home governments and institutions. [16]
 - **Religious Organizations:** In the least wealthy nations of Africa, Asia and Latin America, religious organizations, higher education associations, and non- governmental organizations (NGOs) provide assistance, guidance, and partnerships to build the infrastructure of higher education. Jesuit and other Catholic universities, for instance, operate global HEI networks that are actively improving policy and practice while branching out electronically. [17]
 - **North America:** The United States and Canada are rich in higher education initiatives, but those HEIs are decentralized in their operations. Unlike most nations, the United States does not have an education ministry that sets uniform policies, rules and funding. Rather, the federal government regulates certain laws and legal requirements across the fifty states and territories, but it does not administer higher education funding or specific policies aimed at general HEI improvement. Each state and territory manages its own higher education initiatives, many of which are now struggling to increase retention and graduation as part of the global imperative.

Higher education institutions are struggling to keep up with the developments in our shrinking world, as described by Andreas Schleicher, Head of the Indicators and Analysis Division in the Directorate for Education at the Organisation for Economic Co-operation and Development (OECD): **“The pace of change differs dramatically across countries, even if you consider just the last 15 years of higher education degree output. In 1995, the United States was at the top of the list, and now it is ranked at 15. The proportion of people completing a degree in the U.S. has not fallen; in fact it has grown. But things have moved significantly faster in a number of other countries – in terms of putting out more people with college degrees. So it is very relevant for institutions to not only see where they stand in relation to where they were one or ten years ago, but to look regularly outward at how the global talent pool is changing.”**

Higher Education in a Globalized World

- *Higher levels of student engagement and student success were universally reported as being highly important and relevant, as was maintaining quality.*
- *Greater institutional transparency or accountability was also at the top of the list, calling for institutional cultures built on solid, measurable processes.*
- *The universal integration of technology, to increase access and facilitate international mixing, was stressed by all respondents.*



HIGHER EDUCATION IN A GLOBALIZED WORLD

Today, higher education is at a historical juncture, transitioning from the industrial era to the information era, and from a national perspective to a globalized one. HEIs face a dizzying array of challenges: a global youth and a knowledge worker culture, a lightning-fast digital and Internet culture, changes in how students and instructors interact, and new developments in conducting, archiving and sharing research.

A successful knowledge economy functions best by having a steady stream of educated and skilled workers. Governments worldwide, seeking to improve their economies, are investigating innovative, higher education curriculums and alternate or mixed delivery models, such as online learning and blended environments.

In developed countries (such as the U.S., the UK, Australia, Singapore, and the Nordic countries) private and public funding commitments are steadily being implemented, with the goal of growing their knowledge economies.

In some developing countries, many HEIs and systems are not as effectively organized to build teaching and learning constructs that produce top-notch knowledge workers. Matters are even more challenging in certain developing countries, such as those in Central and Eastern Europe (CEE countries). These “transition countries” are debating what ratio of public and/or private funding is needed to build effective HEIs. [18]

Today’s typical HEI is becoming globally competitive, creating internationally aware students, and responding to regional needs. How that institution is managed, for whose benefit it is organized, and how it opens up its governance are defining factors in today’s world. With more institutions observing and adopting the practices of other institutions, it is important to address common problems. In our interviews and research, three concerns were addressed most frequently:

- **Higher levels of student engagement and student success were universally reported as being highly important and relevant, as was maintaining quality.**
- **Greater institutional transparency or accountability was also at the top of the list, calling for institutional cultures built on solid, measurable processes.**
- **The universal integration of technology, to increase access and facilitate international mixing, was stressed by all respondents.**

Professor Derek Van Der Merwe, Pro Vice-Chancellor & Vice-Principal at the University of Johannesburg in South Africa, sums up the challenges facing HEIs in all corners of the globe. **”It simply is a fact that our students have to be globally competitive. They have to be able to learn independently, in order to increase their skills and their knowledge base. But they also need to be connected with peers, not only in their own classroom, but with students in similar situations in other parts of the world.”**

UNLOCKING THE GLOBAL EDUCATION IMPERATIVE

Five Core Challenges for HEIs

While HEI and government responses to globalization and the global education imperative are diverse, common challenges emerged from our interviews and literature reviews. Five core challenges presented themselves with regularity:

1. **Institutional Mission Definition**
2. **Funding Structures and Arrangements**
3. **Student Engagement Methodologies**
4. **Institutional Transparency and Accountability Practices**
5. **Ability to Partner in a Variety of Ways**

To date, the global education imperative has been a to-do list; a set of core challenges that must be addressed. However, if HEIs addressed every challenge and followed every form of guidance would they emerge as the modern institution they desire to be? It is unlikely that simply reacting to core challenges one by one will answer the deeper questions. More likely, processes, measurement and improvement will need to become an equalizer between institutions as much as the quality of its faculty, the capability of its student body, and the qualifications of its leadership.

Critical Responses

To effectively meet the core challenges of the global education imperative, HEIs must take action. A course of action must provide the HEI with a framework for analyzing their challenges and responding to them in a way that is comprehensive and systematic. This is a dynamic process of change, and requires a shift in thinking, commitment, and attitude, as well as continual changes to meet mission, funding, teaching and learning objectives.

Eight Critical Responses for HEI Change

1. **Practicing a Willingness to Change Fundamentally**
2. **Choosing an Institutional Type**
3. **Broadening the Education Vision to Include the School-HEI Axis**
4. **Understanding and Improving Student Engagement**
5. **Committing to and Exercising Change Management**
6. **Improving Institutional Assessment and Accountability**
7. **Building a Process-driven HEI**
8. **Involving Students / Studying What Works Best**

Five Core Challenges for HEIs

These five are well-known to most HEI and government leaders, as well as the policy and research community. However, the overall challenge is to build a system to incorporate each challenge into a larger process or cycle that not only gives specific identity to the institution, but drives toward quality, efficiency, sustainability, performance, and transparency.

1. Institutional Mission Definition

Missions must be constructed with current issues in mind: sustainable development, inclusion, quality, transparency, and information and communication technology (ICT). The engagement of the student in multiple and meaningful ways is vitally important, along with the involvement of multiple communities and the creation of a performance-driven institutional culture.

On the occasion of the royal chartering of the University of Manchester by Queen Elizabeth on October 22, 2004, the University's President and Vice Chancellor, Alan Gilbert defined their institution this way. "Our aim is to make the University of Manchester one of the top 25 research-led universities in the world. It will be an educational and research powerhouse that is at home in England's North West and committed to regional, national and international agendas." [19]

2. Funding Structures and Arrangements

Funding structures and arrangements must accommodate governments and students in their response to massification. As great numbers of students seek higher education, equity issues of open access to higher education must be balanced against the burden on taxpayers to provide this level of support for quality education for all. The investment in the future involves governments, charitable organizations and individuals.

Professor F. Youngman, Deputy Vice Chancellor - Academic Affairs at the University of Botswana, provided us with this snapshot of their funding structure. "We're likely to move towards a funding framework similar to the public models they have in countries like England, Ireland and South Africa. But at the moment, we're a public university that is directly funded through the Ministry of Education. They provide a subvention to us, which, in addition to tuition fees, supplies probably 95% of our income."

3. Student Engagement Methodologies

Student engagement methodologies must be much more than frills and inducements. They need to be part of a larger engagement, quality, and assessment cycle that constantly measures the alignment between student needs and the quality of institutional programs and services. It may well be that as a result of the larger shift in the culture of HEI attendance that multiple and flexible delivery methodologies will have to be the norm, not the exception.

At Ecuador's Universidad de Especialidades Espíritu Santo, Vice President Albert C. Eyde reflected this idea. "We want our students to be exposed to ideas from all around the world, from Asia and Africa to North America, South America and Europe. We want our students to be able to interact with people all over the world. We just completed our ten-year plan of operations, and that concept has been imbedded completely at all different levels."

4. Institutional Transparency and Accountability Practices

Institutional accountability and transparency are necessary so that education operations and processes are open to responses from students, community, government and business. Measurement processes must be in place to assist HEIs in their operations and to prove their viability to funding sources.

These practices are necessary for HEIs according to Australia's Carrick Institute for Learning and Teaching in Higher Education Executive Director Professor Richard Johnstone. "The Carrick Institute is there to identify, recognize, capitalize on, facilitate, and bring together the expertise that exists across the country and to provide a mechanism by which that can be made as productive as possible for as many people as possible."

5. Ability to Partner in a Variety of Ways

Partnering is a necessity for modern HEI operations. No single HEI can meet all the needs dictated by its mission, or be responsive to all of its student or research needs. At the University of Botswana, Professor F. Youngman, Deputy Vice Chancellor - Academic Affairs, is confident they are addressing this need for interdependence. "At our own institutional level, we're doing a lot to forge links with partner universities. We currently have more than 50 active memoranda of understanding with different universities, and we're significantly increasing that number. We have a new policy on internationalization which we're very actively promoting."

Discussion: The Five Core Challenges

HEIs must meet the five core challenges to be able to provide the quality and level of service demanded today in a competitive education environment. Further, HEIs must be responsive to new demands on employers, and the needs of governments to be economically viable and growth-oriented.

An HEI's mission is not static, and the evolution of its mission is crucial to defining and carrying out the particular core services of each institution. Even well-defined missions are hollow unless they treat their constituencies well and foster engagement and community. For this reason, accountability and transparency (and, in some cases, accreditation) are necessary counterparts to creating higher levels of student engagement within the mission of the institution.

Eight Critical Responses for HEI Change

Unlike the 5 Core Challenges, the 8 Critical Responses can be looked at as components of a process-driven system to determine an institution's ability to meet the new challenges.

Without funds, no institution can survive, let alone change systematically. Modern institutions look to a blend of funding sources from traditional government sponsorship to a mix of tuition, services, and extended education options that bring in additional revenues. Going forward, other mechanisms, such as partnering and building endowments, will become more commonplace as institutions become more and more creative in their funding models.

But where and how does change occur? How can mission development and the rest of the challenges be addressed systematically, in practical terms? There are a variety of ways for HEIs to answer these five challenges, but there is no single path. When and where institutions will develop highly integrated and systematic approaches to the five core challenges is an open question worthy of deeper discussion and inspection of models in other segments of society.

The critical responses below were extracted or inferred from our interviews and materials review. Numerous leaders or researchers mentioned components of the eight critical responses, but to date we have not observed that these have been synthesized into a process or cycle of change. Our conclusion is that change cannot be managed sequentially, but must be part of an ongoing, inclusive process.

1. Practicing a Willingness to Change Fundamentally

The future of HEIs will rest on developing core expertise in the delivery of value to individuals, to national economies, to regional and national social well-being, and to global social and environmental health. It is no longer enough to put one institution's house in order. HEIs are part of a complex geographical, economic and social web that affects every level of society. Thus, the commitment to transform institutions must be part of the strategy of all HEIs. How can this occur? In many institutions, there may be a natural progression from being highly structured to being more functional, on the way to becoming fully networked:

- **Some institutions are very static or traditional. They follow a traditional structural or hierarchical approach and can be very limited in their flexibility or willingness to change. In these cases, their commitment is to the structure, not to the servicing of students, faculty, and staff.**
- **Other institutions create change in an ad-hoc fashion, focused on specific goals at the local level but not accomplishing change across the entire institution. Many of these changes are positive, but they are not usually part of an overall strategy.**
- **Finally, there are institutions moving toward a networked sense of continuous improvement and transformation, changing from a traditional structure to a flexible and accountable one that is dynamic and transparent.**

2. Choosing an Institutional Type

Committing to an institutional type or defining one anew is critical. While there is no definitive categorization for the emergence of different types of HEIs in response to the education imperative, the following types seem to logically follow from the trends we have observed:

- **Global HEIs** – These are supra-national institutions which respond to the needs of a global knowledge economy, as well as social and environmental issues.
- **Regional HEIs** – These are national institutions with strong, regional development roles, seen as gateways to the global economy.
- **Urban HEIs** – As populations become more urban, HEIs in major cities take on the increasing role of providing access to diverse student bodies and of preparing students for careers mostly in their local geography.
- **Local HEIs** – Communities in less densely populated areas, where changes in local economies require new types of local expertise, require further educational resources, community colleges, ROCs in Netherlands, TAFEs in Australia, and technical training providers for skills development, academic foundation and re-training.
- **Online HEIs** – Online programs and courses will continue to develop and provide convenient and accessible options for students in developed and developing nations across all geographies and demographics.

While this typology is useful to help define what kind of HEI an institution is, partnerships between institutions will become more important where functions not handled by one institution can be made up by another, leading to positive results for all parties.

3. Broadening the Education Vision to Include the School-HEI Axis

A growing number of nations are encouraging HEIs to work more closely with primary and secondary schools. National governments are beginning to examine broad initiatives to expand secondary education, dual enrollment, or early university education, in some cases with technology.

The changes brought on by globalization and the education imperative would suggest that bureaucratic, top-heavy organizations are not going to address the growing education needs of students who increasingly communicate, interact and connect with the world digitally and on their own.

Likewise, standardized curricula taught to classrooms full of students, instead of directly to individual students, are going to make it more difficult to produce secondary students who are ready to continue their education or compete effectively in the modern workforce.

All HEIs and governments, in order to have success at the HEI level, should pay particular attention to the “pipeline” of students coming to them from schools, and have a hand in the development of teachers, schools, programs and curricula to better align with higher education. In many cases, the “pipeline” can be facilitated by online courses, counseling, teacher professional development, and content sharing that span the school and HEI segments.

4. Understanding and Improving Student Engagement

Student engagement is the most-cited issue facing HEIs. It is a problem of high quality offerings, effective learning and customer management. It is also a substantial indicator of a growing social and cultural shift in learner behavior and, perhaps, of the very notion of what “higher education” means in the information age.

Engaging higher education students with faculty, administrators and the community is essential. If engagement of these principal constituencies is not the first order of business of the HEI, it will be difficult to map a clear course into the future. Some of the more modern aspects of the education imperative, in relation to engagement, would suggest the following:

- **All teaching and learning should adopt technologies that are consistent with those being utilized in society. The electronic link between students, faculty and researchers should be part of all education delivery and interaction, whether it occurs in a lecture hall or in a blended or fully online environment.**
- **Group learning or community building should be facilitated through online social networking and other accepted uses of technology.**
- **Student engagement can come in many forms. Students living on campus for four or five consecutive years to earn a bachelor’s degree is not likely to remain the norm. Managing students with flexibility will be key.**
- **Global student interaction will be essential, as education no longer stops at national borders. Travel programs, multi-national research teams, online forums and international partnerships can facilitate new and exciting global interactions between students and faculty.**

5. Committing to and Exercising Change Management

Where should the advice for change in HEIs come from?

- **Change cannot entirely come from the people who have built and operated the current institutional reality; unless they are able to step outside of the old structures they have known and run.**
- **Change cannot come entirely from industry, as business drivers are not the same as higher education drivers.**
- **Technology alone, organizational change consulting alone, or customer management alone cannot answer the questions facing higher education.**

The global imperative suggests that the successful HEI must incorporate new methodologies and organizational structures focused on measurable outcomes that are driven by networked groups and leaders who can generate strategic objectives that can be implemented over specific timeframes with high visibility.

6. Improving Institutional Assessment and Accountability

In order to maintain stability in light of rapid changes, experimentation and planning, student engagement must be married to institutional assessment, accountability, and transparency. All are necessary to invite involvement at all levels of discussion and to provide visibility into the process of change.

Assessment, accountability, accreditation and transparency are all concepts of operating an open institution in such a way that measuring progress and practicing public disclosure enhance the changes adopted by HEIs.

If assessment or accountability at an institutional level is ambiguous, it can disrupt the building of necessary cycles of engagement for the future. Where accreditation is a factor, clear systems of evidence-gathering and the reporting of progress and improvement are necessary. Relying on single snapshots of teaching and learning at a single point in time are no longer sufficient.

Using technology to create a transparent forum for accountability and progress is also becoming the norm. Agencies that ask for accountability reports or accreditation evidence increasingly want this information in real-time.

7. Building a Process-driven HEI

Successful transformation, measurement and attentiveness to teaching and learning quality and engagement require a change- and operations-management philosophy that includes three components: re-organization, technology integration and constituency focus.

- **It is not enough to just re-organize, without capturing the processes for how and what needs to be accomplished.**
- **These processes must be systematically captured and recorded on an on-going, or evidentiary, basis.**
- **Technology is necessary to push tasks forward. Plus, the focus must at all times be on delivery to the constituencies that form a modern HEI: students, faculty, researchers, community, corporations, and government.**

Process models became popular as corporations in the 1980s came to embrace corporate “re-engineering.” These concepts transformed large and small businesses from static, top-down organizations into dynamic commercial entities that could change with the times, while remaining focused on producing value.

8. Involving Students / Studying What Works Best

HEIs should directly involve students in change, and solicit their involvement in reporting back what works best. Students are the recipients of the new energy and focus of institutions, involving them in meaningful ways is very important

It is essential to build a culture to test results, construct accountability processes, and build research processes that can detect, measure, and interpret different methods of developing, delivering, and assessing education, as is separating what works from what does not.

Discussion: The Eight Critical Responses

Changing business processes and business cultures helped transform global businesses in the 1980s and 1990s and, in many ways, led to some of the globalized aspects of the society we live in today. Most corporations incorporated advanced technology throughout their operational changes. Advances in technology, customer management, communication, development and production processes led to new concepts of business and the utilization of concepts of value to their customers and their suppliers.

Since so much of higher education is focused on managing people – faculty, students and staff – and moving them through teaching, learning and research cycles, often there is very little time to contemplate the large-scale changes occurring in the world and how HEIs need to change. New institutional challenges will continue to arise. As we begin to better understand who is being served, what processes bring value to the various constituencies, and how to express what is occurring in an open, collaborative atmosphere, HEIs can move forward confidently.

Existing institutions are already transforming. Here is how Professor Alan Gilbert, President and Vice-Chancellor at England's Manchester University, describes some of the changes: "The University operates through an annual cycle of planning and accountability that will persist until the Manchester 2015 vision has become a reality. The cycle involves inter-locking processes of strategic and operational planning, budgeting, implementation, performance review, and accountability to stakeholders. At all levels, strategic planning generates annual Operational Plans designed to break longer-term goals into shorter-term targets." [20]

The transformation is not always easy. Dr. Yagnaswami Sundara Rajan, Principal Adviser at the Confederation of Indian Industry describes the obstacles. "The biggest challenge is going to be to get out of the hierarchical mindsets of the academic institutions which have been overwhelmed over the past sixty years with complex web of rules and regulations. How to introduce 'freedom' to the younger generation and allow them to innovate is a crucial issue. Therefore, the challenges are organizational and micro-sociological."

In an October 2007 paper entitled *An International Education Policy for U.S. Leadership, Competitiveness, and Security*, the Association of International Educators (NAFSA) summed up the imperatives for American HEIs this way: "In the global age, our nation's need for international competence has never been greater. The paucity of international content in U.S. education must be addressed. On the one hand, curricula must be globalized at all levels, so that everyone who graduates from college in the United States has been educated internationally. On the other hand, specialized study must be bolstered to produce the high-level, international and foreign-language expertise that is required today in government, business, education, the media, and other fields." [21]

Comprehending that students and the culture of learning are changing is essential. It is critical to not only include more students in the higher education experience, but to invite their participation in the building of the new HEI. The demonstrated ability of students to work in social networks is a strong indication that those being serviced by higher education have the capacity to participate at much higher levels in their own and their institution's improvement.

Facing the Global Education Imperative

- *Equity of Access*
- *Sustainable Development*
- *High-quality Instruction*
- *Engagement of Student Experience*
- *Transparent and Accountable Administration*
- *Process-driven Organization Structures*
- *Strategic Use of Technology*



CONCLUSION: FACING THE GLOBAL EDUCATION IMPERATIVE

At this stage in history, higher education institutions should prepare to not only change, but to develop the expertise to lead in the knowledge economy. This must include teaching the skills and knowledge required for new types of work and research. In addition, academia must develop its own core skills in change, organization and management for the information age. This will allow them to address social welfare issues and the knowledge economy.

It is time for HEIs and the governments supporting them to move from enumerating and discussing the common challenges to responding to the core challenges brought on by massification. This can be done by building systematic approaches to the global education imperative.

There are institutions around the world that are providing positive, clear leadership, not only in the higher education context but in the larger economic and social setting. These institutions are following a key set of principles and incorporating them into a systematic, student-centered, and measurable approach.

Responding to the 5 core challenges by pulling the 8 critical responses into a coherent operational model, the 21st century global institution must grapple with some, if not all, of the following key principles:

- **Equity of Access**
- **Sustainable Development**
- **High-quality Instruction**
- **Engagement of Student Experience**
- **Transparent and Accountable Administration**
- **Process-driven Organization Structures**
- **Strategic Use of Technology**

Building such an operational model is a great deal to ask of institutions that have operated for years in a very different environment. But this is also an exciting time, and HEIs can play a defining role in the new, global environment through the opportunities it presents to the academic community and its graduates.

At a panel session entitled “Social Change and University Development” at Peking University in November, 2007, Shih Choon Fong, President of the National University of Singapore, offered this perspective. **“As a community of scholars, universities can bring knowledge and new ideas not only to improve material or economic well-being, but also to address matters of the heart and mind. The university’s civilizing mission relates to developing the character of the global citizen, who is at ease with diverse cultures, is able to bridge those cultures, and contributes to dialogue on global issues. This civilizing mission focuses more on mastering the self, and understanding self, in relation to society.”** [22]

Many of the leaders in higher education who are committed to broad changes have set a target date in the future (e.g. 2015 or 2025). While this is a useful planning exercise and may get committees to think about change, it may not be radical enough.

The shift from the industrial era, where the unit of activity was a corporation that steadily employed a labor base, to the information age, where the unit of activity is how smart, flexible and collaborative a single person might be, is monumental. The fact that this is occurring while the populations of developing nations are soaring and the populations of most developed nations are shrinking, makes the possibility for wholesale change even more dramatic.

At the February 2007 Rocky Mountain Sustainability Summit at the University of Colorado, Boulder, the President of Arizona State University, Michael M. Crow made this key observation: **“We must recognize our responsibility to use the knowledge we advance for the good of society. We must ensure that scientific and technological change in the coming decades lead to equitable societal benefit and contribute to global economic, environmental, and civic sustainability.”** [23]



BLACKBOARD RESEARCH

Blackboard solutions are utilized by more than 3,500 HEIs, schools, government and corporate settings in more than 70 nations. Blackboard has not, to date, conducted a comprehensive analysis of what this substantial base of education technology use represents in terms of world-wide education change, policy or academic planning. Now, as the global education imperative is requiring re-examination and change, Blackboard is studying the changing global landscape in order to better serve higher education.

Blackboard periodically publishes white papers and holds education summits in various locations globally. This report is the first attempt to cover global trends in substantial depth and breadth. Previous research has covered higher education in three nations, examined changes in K12, and chronicled the rise of “K-20.”

Early in 2007, Blackboard issued “*A View from the Top: Building the 21st Century Campus*,” a study derived from face-to-face interviews with 60 higher education leaders in the United States and Canada. A larger sample survey of 500 institutional officers also took place online. In early 2008, Blackboard issued, *A View from The Top II: Building the 21st Century Campus: A Leadership Survey on the Challenges Facing Australian Universities*, which was an examination of top issues facing Australian HEIs. (Please www.Blackboard.com/research.)

While the research findings from the three developed English-speaking education-rich nations reflect what HEI leadership see as their greatest challenges in each of those nations, this report attempts to paint with a broader brush. It is our intent to try to decode the global education imperative, to better understand what is motivating it, and to understand how it fits into the rest of society and economy. The purpose of detecting and extracting meaningful patterns from the volumes of information, interviews, and knowledge is to create a useful synthesis not only for the leadership and policy community, but to provide practitioners, faculty, IT and academic officers with a useful set of perspectives to understand why changes to routine operations and practice are becoming necessary.

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