



Globalization & Its Curriculum Implications in Higher Education

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Globalization: *A New Socio-economical Force*

One World, One Dream

同一个世界，同一个梦

One World, One Financial Storm

同一个世界，同一个金融风暴

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A Globalized World induced by the ICT Revolution of the Last Decade

- Rapid advances in Information & Communication technologies have propelled us to a knowledge-based economy which in turn, created an increasingly globalized world
 - PC & Internet
 - Wireless & Broadband Digital Network

Unlike other industrial revolutions, ICT revolution has been unfolding with a much greater pace...

- It took 50 years for telephone to reach its first 5 million users, but only 5 years for Internet to reach its first 50 million users
- The first commercial application of Internet was launched in 1989 & “www” has been in existence for less than 15 years
- The world now has 3 billion cell phone users and 1 billion Internet users; information is being transmitted with almost instant speed, unlimited bandwidth at insignificant cost

And likely will Continue to Accelerate...

Computational Speed of a PC will be 10^6 faster by 2025

Communication Speed, both wire-line & wireless is also increased by leap & bound: in '95 the telephone modem ran at 56 Kb/s, now 100Mb-1Gb/s fiber cable system is being installed

Paul Horn, SVP at IBM (retired)-

- ➔ Product brought about by new technology will be commoditized sooner rather than later
- ➔ Innovation is now higher valued because it provides the channel to bring newer products to the market place

Business must now deal with the new realities of a technology-enabled global commerce

- Successful e-retailers derive their innovations by empowering consumers in an e-market place with
 - e-Bay, Amazon, Expedia...
- Leveled playing field for entrepreneurs & small businesses; New business models abound
 - e-lancing, e-Choupal, etc.
 - Mobil micro-banking & just-in-time transaction
- Large multinational now operates in a geographically distributed, ethnically-diverse, and operationally efficient environment

“The World is (increasingly) Flat, (but also bumpier)” -Tom Friedman

But globalization does not stop with only commerce; It makes it 's mark on society as a whole

Five Attributes of Globalization: J.A. Schulte (2000)

- **Internationalization**
Glowing flow of ideas, technology, trade & capital investment across national borders
- **Liberalization**
Reducing government-imposed restriction on the movement of people, goods and services
- **Universalization**
Accelerating & standardizing various objects and experiences by people all over the World
- **Westernization**
Popularizing the social forces of democracy, capitalism, secularization, not just culture, tradition & life-style
- **De-territorialization**
Human interactions transcend territorial borders & distances

So how does the tech-driven globalization impact today's higher education reform?

- Our students need to understand the essence of being both
 - Local & global
 - Collaborative & competitive
 - Independent & inter-dependent
- Higher education must provide their students the tools and aptitudes to adapt to not only rapidly changing technologies, but also a rapidly changing society
 - A economically, politically and culturally more intertwined world
 - The triple play of infor-tech, nanotech and biotech

Could a technology-enabled society posts new human dilemmas of global dimension?

- The challenge of wisdom in the age of digital information
- The challenge of life in the age of genome, and
- The challenge of sustainability in the age of economic development

Jeff Lehman, 2006

The Challenge of global prosperity in the age of greed?

Reformists would therefore argue for major paradigm shifts in the curricular content

Discovery	→	Innovation
Understanding complex phenomena	→	Finding creative solutions
Discipline Specific	→	Interdisciplinary
Individual	→	Team
Single culture & local	→	Multi-culture & Global

I2E Curriculum For Engineering

- Making Innovation, Invention & Entrepreneurship (I2E) not only as the basic curriculum framework, but also a campus culture
- Providing students with a supportive learning environment for practicing I2E
 - Internship experience
 - Business plan & project management
 - New business incubation
 - Angel & venture fund

What might be the Curriculum that reflects a changing world...

- Broaden the core curriculum
 - Liberal arts students can better adapt to technologies and technology students can better understand the impacts of technology on society,
- Educate not only specialists but also generalists
 - Understand the importance of integrating knowledge in different academic disciplines into new innovations, and
- Incorporate a strong international component
 - students learn to work, learn and adapt to a globally distributed, ethnically diverse team environment

The New Harvard General Education Program

- Concept
 - The role of its faculty is to help students not just to acquire the knowledge, *but also to develop the **skills and habits of mind*** that will prepare them to understand the complexities of the world
- Eight required areas for all undergraduates
 - Aesthetic and interpretive understanding
 - Culture and belief
 - Empirical and mathematical reasoning
 - Ethical reasoning
 - Science of living systems
 - Science of the physical universe
 - Societies of the world
 - United States in **the world**

University's Responses to Globalization have been evolving as well....

Basic Approaches-

- Study abroad, conferences
- Accreditation, standardized academic framework

New Possibilities-

- International internships
- Joint and/or dual degree programs
- Technology-enabled faculty collaboration & curriculum development
- Multinational design teams & competitions

For instance, we have just launch a new joint Institute with Nanjing University:

Joint Institute for Innovation & Entrepreneurship

- To educate **21st century leaders** in an increasingly globalized world
- To improve quality of teaching and research through **collaboration**
- To forge a strong partnership with **government, private sector & multinationals** in developing talented workforce
- to implement programs to aid the economic development of the **Yangzi River Delta region**

With selected programs such as:

- 3/2 BS/MS and Fast-track PhD; Study-Abroad Program
- New **curriculum** and course offerings
 - A new management course at Poly on Doing Business in China, followed by a 2 weeks study tour in Nanjing
 - 1-2 new courses offered by Poly faculty at NJU during semester breaks or vice versa ;
 - Use of virtual organization to enhance collaboration
 - Workshop on I2E implementation on both campuses
 - Course on process on innovation
- Other non-curricular ventures:
 - World Forum on Urban Sustainability
 - Executive training, study tours, certificate programs
 - HS outreach to encourage innovation & global collaboration

In conclusion, we could safely argue that

The new reality of a globalized world undoubtedly would require us to re-examine and revamp the means to educate tomorrow's leaders. While it may not be easy and entails risks, it nevertheless presents us with exciting opportunities as well.

THANK YOU!