



香港教育大學

The Education University  
of Hong Kong

# Rethinking the Internet in Higher Education: Back to the Basics

**LIM Cher Ping**

**Chair Professor of Learning Technologies and Innovation**

*The Education University of Hong Kong ranked 2nd in Asia and 12th in the world in Education  
(QS World University Rankings by Subject 2016)*

# Higher Education Teaching and Learning

- Higher education institutions educate students to go into the world with the relevant competencies that can contribute to the development of a knowledge-based economy.
- Higher education institutions then have to ensure high quality teaching and learning, not just for the benefit of students but also for the well-being of the wider community.
- Teaching is the primary function of most higher education institutions where the majority of the funding (at least 75%) comes from teaching.

# Higher Education Teaching and Learning



MY ONLY  
SKILL  
IS  
TAKING  
TESTS



SCHWADRON

# Higher Education Teaching and Learning

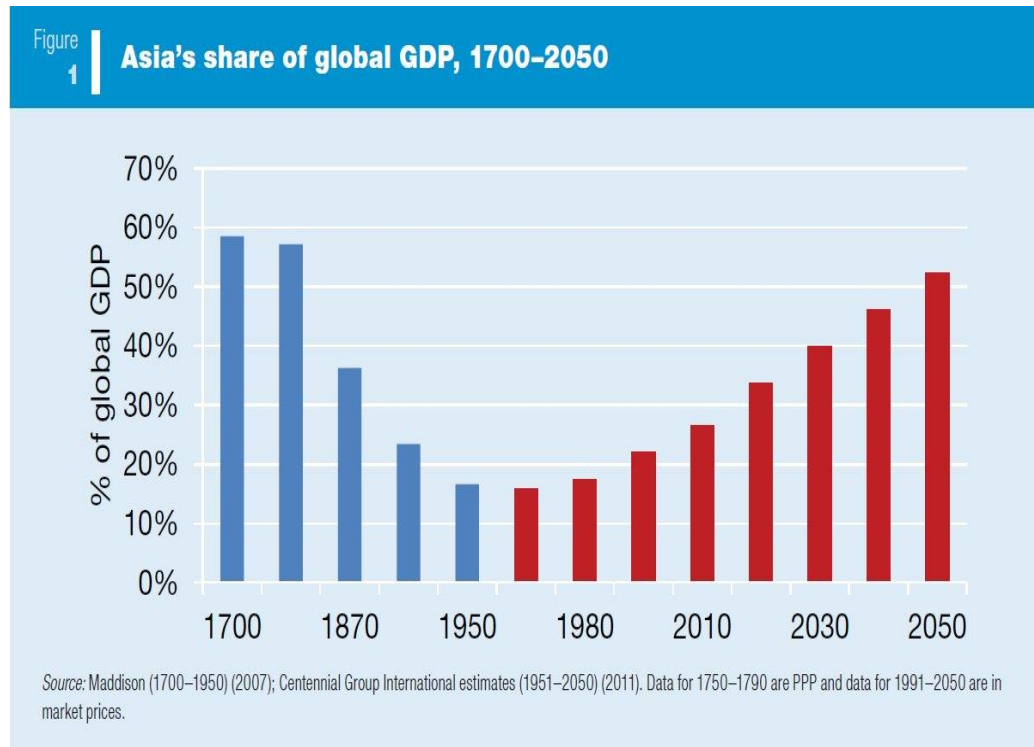
- The prevailing conception of teaching in higher education has emphasized on what teachers did, not what students learned.
- Massification of higher education means more diverse abilities and motivations among students, where lecturing about declarative knowledge can no longer be the default teaching method.
- Higher education teaching and learning has been shifting from teacher-centered input model, to one that is student centered and based on learning outcomes (output).

# Session Overview

- Why Rethink Higher Education Teaching and Learning?
- What Do We Rethink? Equity-Quality-Efficiency
- The Internet to Support the Rethinking of Higher Education: (A) Blended Learning (B) MOOCs (C) E-Portfolios (D) Learning Analytics
- Back to the Basics:
  - 21<sup>st</sup> Century Competencies and Holistic Development of Students
  - Curriculum Alignment: Vertical and Horizontal
  - Capacity of Higher Education Teachers and Their Motivation
  - Scholarship of Teaching

**Why Rethink?**

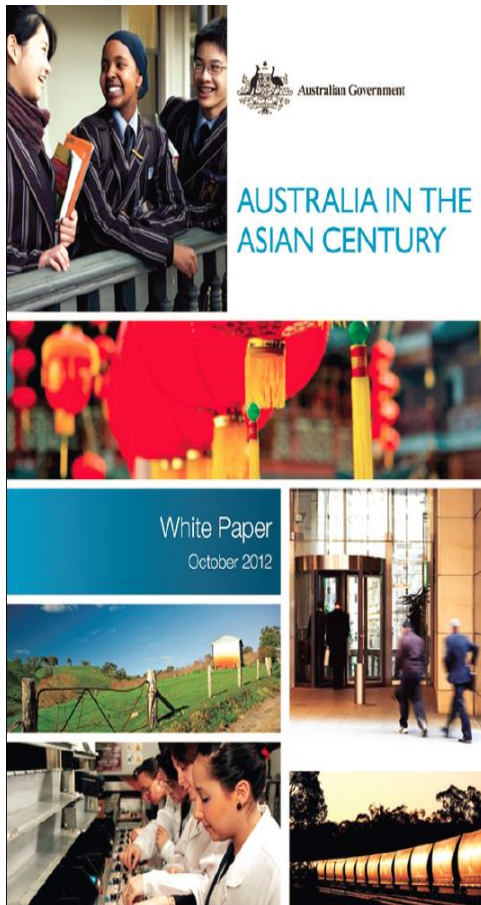
# Asian Century?



In the ADB's publication *Asia 2050*, it predicts that another 3 billion Asians will enjoy similar living standards to those in Europe today, with Asia accounting for more than half of the global output by 2050.

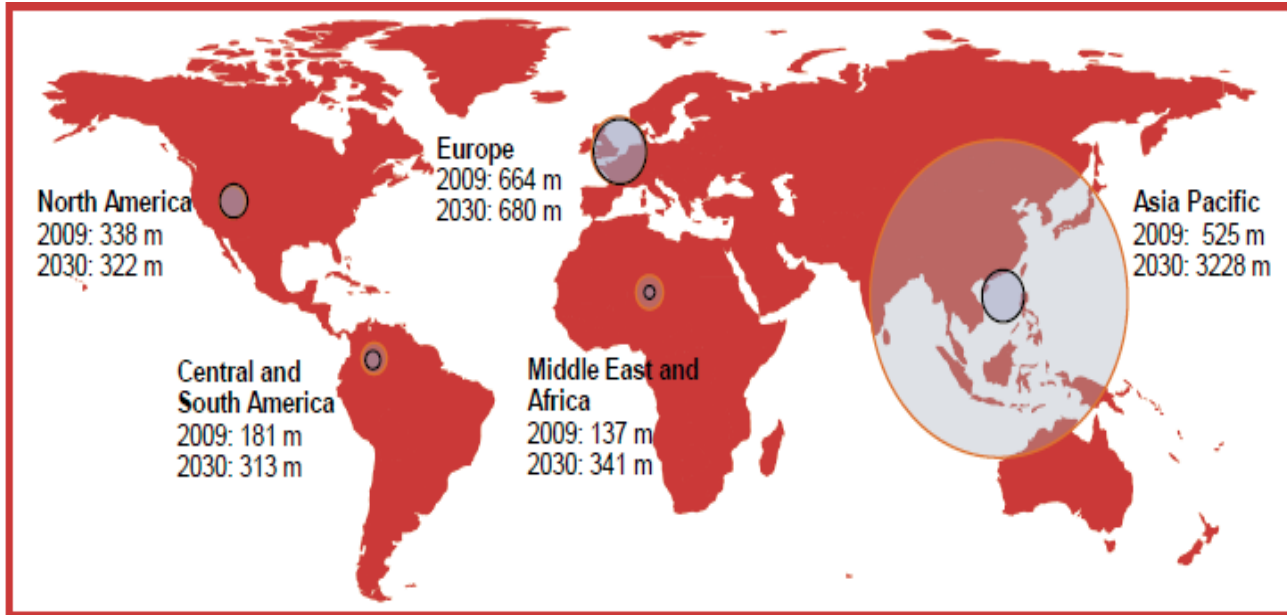


# Asian Century?



- Although there has been a dramatic slowdown in Japan's economic growth in the last two decades, China's rise in the wake of the Open Door policy and India's impressive growth rates have laid the foundation for Asia's dynamic economic resurgence.
- This was most evident during the 2008 global financial crisis when Asia demonstrated its resilience as compared to the threats of unemployment, national bankruptcy, and housing sector collapse experienced in Europe and North America.

# Asian Century?



Note: 'Middle class' is defined as those households with daily expenditures of between US\$10 and US\$100 per person. The black border circles and orange border circles depict the size of the middle-class population in 2009 and 2030 respectively.

Source: Kharas & Gertz (2010).

Asia is becoming and will be the world's largest producer of goods and services, and will be the world's largest consumer. It is already the most populous region in the world and will most probably form the majority of the world's middle class by 2050.

# Asian Century?



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# Asian Century?



# Asian Century?



# Asian Century?



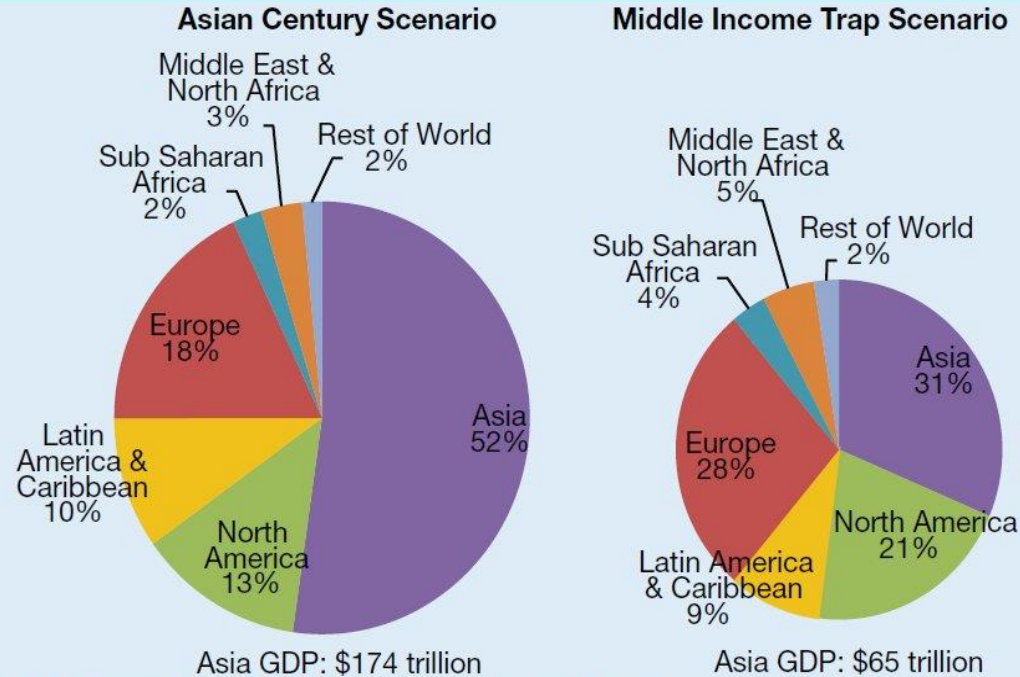
# Asian Century?



# Asian Century?

Figure 3

## Asian Century vs. Middle Income Trap



Source: Centennial Group International projections, 2011. Figures use market exchange rates (MER).

For Asia to sustain its growth and make the Asian Century a reality, it has to harness on the potential of the rapid advancement of technology, and makes sense and manage the global level of economic, ecological, social, political and cultural integration across countries that are part of globalisation.



# Asian Century?



- In such a new world order, young people in Asia have to be prepared to be agents of change rather than just passive observers of world events; and at the same time, to live together in an increasingly diverse and complex society and to reflect on and interpret fast changing information.
- Young people need to critically examine local and global issues across boundaries (country-country or rural-urban) and act upon them.

**What to Rethink?**

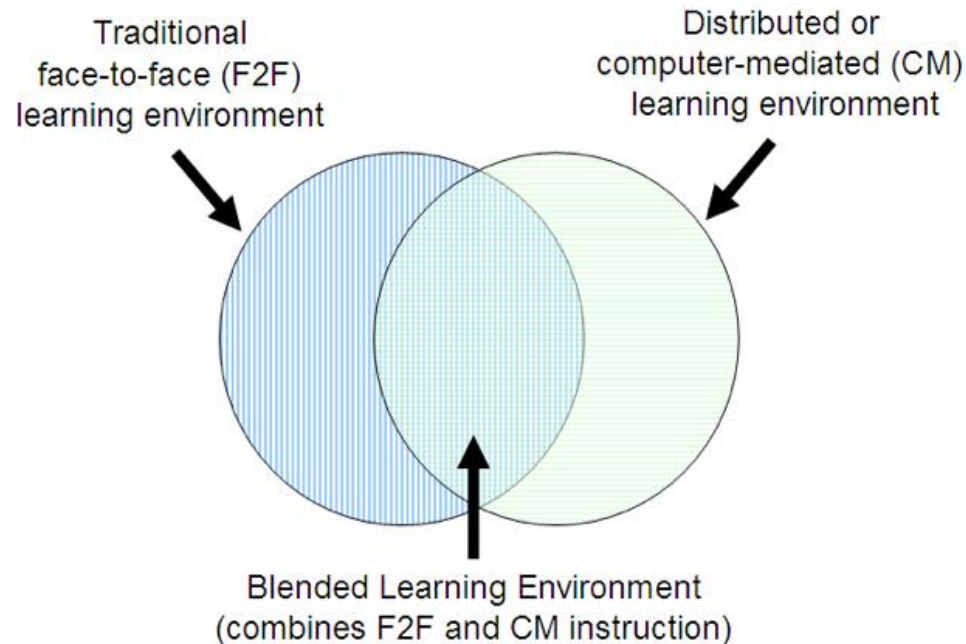
# Quality, Equity and Efficiency

- **Quality:** Capacity of institutions and educators to meet the particular learning needs of particular learners in particular settings. This is most important with the wide ranging and diverse educational contexts within and across countries.
- **Equity:** Pertains not only to access and participation but also to educational survival, transition, completion, and achievement.
- **Efficiency:** Efficiency is an economic measure of education systems performance. Internal efficiency involves the optimization of inputs (teachers, administrators, facilities, instructional methods, teacher professional development, etc.) to produce the desired outputs (learning gains). On the other hand, external efficiency relates to the outcomes of an education system.

# **The Internet and the Enhancement of Quality, Equity and Efficiency**

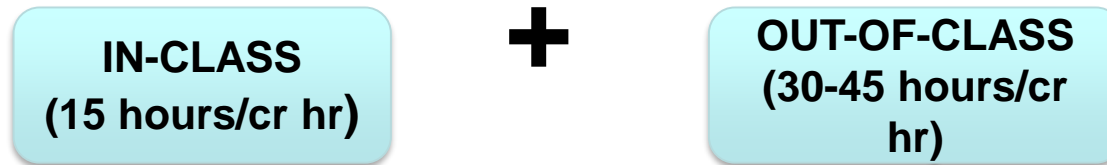
# Blended Learning

Blended Learning is the deliberate fusion of online (asynchronous or/and synchronous) and face-to-face contact time between teaching staff and students, and/or among students in a course.



# Blended Learning

## Traditional



## Blended



**$X + Y =$  approximately same learner time as the traditional model**

# Blended Learning

- Actively engages students and enhances learning outside the traditional physical, temporal and interactive limits associated with formal face-to-face learning;
- Provides opportunities for teachers to implement student-centred and active learning that promote student learning of important 21st Century skills;
- Develops learning communities that work; together to build knowledge through processes such as inquiry, reflection and discourse; and
- Blended Learning is about rethinking and redesigning the teaching and learning relationship

# MOOCs

- Massive Open Online Courses (MOOCs) are "*massive*, with theoretically no limit to enrollment; *open*, allowing anyone to participate, usually at no cost; *online*, with learning activities typically taking place over the web; and a *course*, structured around a set of learning goals in a defined area of study," (Educause, 2013, p. 1).
- The combination of openness and technology-enabled scale that are inherent features of the MOOC make it a uniquely promising mode of learning for addressing equity, quality, and efficiency issues in education.



- The profiling of MOOC participants has shown that the majority of them are from North America and Europe and tend to be young, well-educated, and employed (Liyanagunawardena et al., 2013; Nesterko et al., 2013; Christensen et al, 2013).
- Language proficiency is an obvious discriminator since most MOOC courses are in English (Liyanagunawardena, et al., 2013).

# MOOCs

- The requirements for effective participation in MOOCs are similar to those of other forms of online learning: learners need to be self-directed, to be able to balance day-to-day activities with learning in the course, to be able to manage the influx of information, and to have the digital literacy to engage in a learning environment with minimal support mechanisms.
- Many MOOC participants struggle with the lack of structure and support; as a result, a significant number of learners are unable to complete the courses in which they have enrolled for.

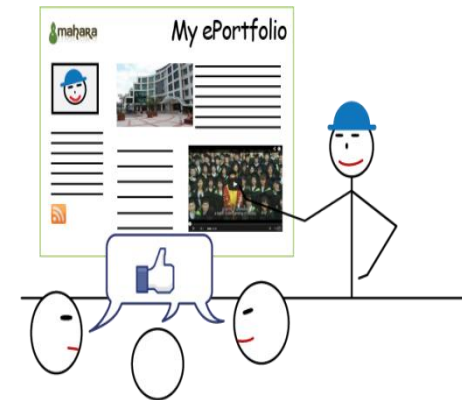
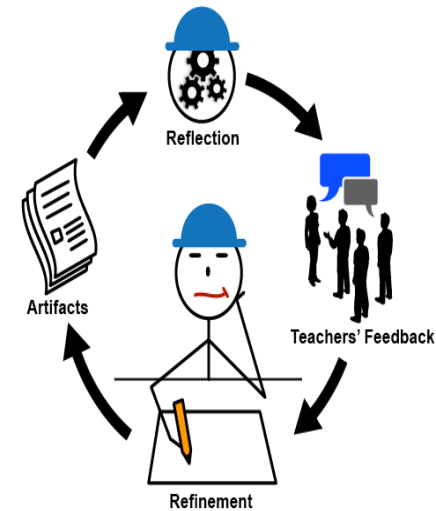
# E-Portfolios

E-Portfolio is purposeful collection of digital artefacts, that include evidences of students' learning process and outcomes.



# E-Portfolios

- Empower students in monitoring and managing their own learning processes and trajectories;
- Engage students in critically reflecting upon their learning and become lifelong learners;
- Create opportunities for students and staff to engage in technology-rich learning environments;
- Support students in collecting evidences of their learning throughout 4/5 years of study;
- Provide a platform for students to showcase their professional and 21<sup>st</sup> century competencies.



by

## Profile information

- First name: [REDACTED]
- Last name: [REDACTED]
- Student ID: [REDACTED]
- Display name: [REDACTED]
- Email address: [REDACTED]



## Introduction

Welcome to my consolidation page! This collection is going to show many treasure and crucial experiences in My IEd life which included GE courses, field trip, winter camp, exchange, internship and overseas internship. Having an evaluation after engaged in those, it can help me to think deeper about what should I required to improve in order to having a further development on myself and my career path.

## Introduction of strengths and weaknesses

In order to have deep understanding on what am I good for or bad for, I used a generic outcomes to evaluate myself first. After that, I could figure out my weaknesses and strengths are. Choosing generic outcomes as the rubrics is because it represents kinds of skills, attitudes and dispositions required for lifelong learning. It is crucial and comprehensive for me as we should study as much as we can in our life and every second is a part of learning.

## Strengths and weaknesses (i)

Generic Outcome	Brief Description	Beginner	Intermediate	Advanced
Problem-Solving	• Be able to identify problems			√
	• Be able to gather information			√
	• Be able to analyze problems			√
	• Be able to evaluate solutions		√	
Critical and Reflective Thinking	• Apply critical reasoning to issues through independent thought and informed judgment			√

## Result of strengths and weaknesses evaluation

After a self-evaluation, I have weaknesses in :

1. Creative and Innovative Thinking
2. Social interaction
3. Global perspective and Multi-cultural Competence
4. Ethical Understanding
5. Decision Making

## Strengths and weaknesses (ii)

Generic Outcome	Brief Description	Beginner	Intermediate	Advanced
Effective Communication	• Articulate and express one's self		√	
	• Can express knowledge, ideas and opinions in their professional field, both orally and in written form, with confidence, fluency and clarity.		√	
	• Be able to engage effectively and appropriately with information and communication technologies		√	
	• Be able to actively listen and respond to the		√	

## Personal Goals

### Short-term Goals

1. Promotion of Creativity
2. Appreciation of diversity
3. Respect of ethics and ethical standards

### Mid-term Goals

1. Be more proactive with strangers or new friends
2. Understanding more social and political responsibility



## Introduction of the learning outcomes

After engaged in different experiences, i tried to have an evaluation again based on the generic outcomes.

### The learning outcomes (i)

Generic Outcome	Brief Description	GE	FT	WC	E	I	OI
Problem-Solving	• Be able to identify problems	√	√	√	√	√	√
	• Be able to gather information	√	√	√	√	√	√
	• Be able to analyze problems	√	√		√	√	√
	• Be able to evaluate solutions	√	√		√	√	√
Critical and Reflective Thinking	• Apply critical reasoning to issues through independent thought and	√	√		√	√	√

### The learning outcomes (ii)

Generic Outcome	Brief Description	GE	FT	WC	E	I	OI
Effective Communication	• Articulate and express one's self	√	√	√	√	√	√
	• Can express knowledge, ideas and opinions in their professional field, both orally and in written form, with confidence, fluency and clarity.	√	√		√		
	• Be able to engage effectively and appropriately with information and communication technologies	√	√		√		
	• Be able to actively listen and respond to the ideas of other people.	√	√	√	√	√	√
Social Interaction Skills	• Build positive relationships with others	√	√	√	√	√	√
	• Be able to interact effectively with others in order to work toward a common outcome		√			√	√
	• Show capacity for tolerance and mutual respect of others, resolving conflict and the negotiation of outcomes.	√			√		

by

## Introduction

Welcome to my page which share my overseas internship experience in Shanghai with you! At here you can know more about what I have done in N-dynamic, a market research company located in Shanghai.

## Going to work on MRT with other interns



## Lunch with colleagues from N-dynamic

## Goals for this intnership

Posted by [REDACTED] on 31 May 2014, 1:15 AM

My personal, educational and career goals

After Reviewing my personal development, educational and career goals with contents drawn from 'Self-Directed Search' result. I am a person who is conventional, enterprising and social. N-dynamic is a market research company which is suitable for me to be an intern there since I love engaging in marketing and business industry.

### 1. Personal Goals

I would like to boost up my self-confident since I am not enthusiastic enough when I present or bring up my ideas with the strangers. Thus, I would like to be more sociable, since I don't like to move out my confront zone. Start using variety of tactics to improve my social skills, such as posture, eye contact, facial expression etc. Thus, I want to buffer my knowledge in market and business industry since I want to have

## What I have done during internship?

1. Data Analysis
2. Translation Works
3. Audio Record and Analysis
4. Setting up research and interview questions
5. Proofreading documents
6. Site Visits

## Having a disccusion on Kellogg's proposal



## Presentation on expectation to N-dynamic

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The Hong Kong Institute of Education  
香港教育學院

夏季工作發展實習計劃2014  
(大中華地區)

實習機構: N-Dynamic(上海)

N-Dynamic  
Market Research

N-Dynamic簡介

成立於2000年

董事: 陳明達先生

## Feeling after staying Shanghai for 4 weeks

Posted by [redacted] on 23 July 2014, 12:04 PM

來到上海已經差不多四個星期了，當中我經歷了不少甜酸苦辣。這段光陰令我體會更多，學習更多。有不足，當然要用於認錯及改過；有長處，必定加以善用和發揮。這次實習無疑為我未來的事業奠下重要的基石。

## What achieved after the internship

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捷思市場研究及顧問有限公司  
N-Dynamic Market Research & Consultancy

Summer Internship in Shanghai  
2014

Content

## Feeling before 1- week departure

Posted by [redacted] on 18 August 2014, 11:46 AM

光陰似箭，日月如梭。在上海實習的時間剩下最後的一星期。當中學習也有，失去的也有。不可否認，在上海待了接近兩個月的時間，思鄉之情湧上心頭也實人之常情。儘管透過通訊應用程式來進行視像及電話來進行對話，但難免有所距離。幸好，只須再過一星期，便可抱抱我的親友們。



## Overall action plans

---

1. More Voluntary work and internship to promote civil responsibility
2. Application for summer school program to gain chances to meet new friends
3. Talk and high table dinner with some professional to enhance beverage in front of people
4. Extra practice for English and Putonghua as their both international languages which can help me to absorb more from different culture and criticise or think about globalisation and appreciate and care ethnicities

Those plans can help me improve:

1. Promotion of Creativity
2. Appreciation of diversity
3. Be more proactive with strangers or new friends



## Feedback

0 comments

# Learning Analytics

- Learning analytics refers to the collection, analysis, and reporting of data about learners and their contexts to improve student learning (Aljohani & Davis, 2012).
- It is focused on improving learning quality and efficiency and is distinct from what is termed 'academic analytics', which is concerned with the analysis of organizational processes, workflows, resource allocation, and institutional measurement to improve organizational effectiveness (Siemens et al, 2011).
- The growing popularity of analytics in higher education is driven by at least three factors: the emergence of big data - datasets whose size and variety is beyond the ability of typical database software to capture, store, manage, and analyze; online learning and its systematic collection of user transactional data; and the growing need for measurement to empirically demonstrate learning enhancements (Ferguson, 2012).

**Back to the Basics**

# Back to the Basics

- 21st Century Competencies and Holistic Development of Students
- Curriculum Alignment: Vertical and Horizontal
- Capacity of Higher Education Teachers and Their Motivation
- Scholarship of Teaching

# 21<sup>st</sup> Century Competencies

- Critical thinking skills
- Problem solving skills
- Creative and innovative thinking
- Effective communication
- Ethical understanding and decision making
- Social interaction
- Global perspective and multi-cultural competence

# 21st Century Competencies

Generic Outcome	Brief Description
<b>Problem-Solving</b> (解決難題)	<ul style="list-style-type: none"> <li>• Be able to identify problems</li> <li>• Be able to gather information</li> <li>• Be able to analyze problems</li> <li>• Be able to evaluate solutions</li> </ul>
<b>Critical and Reflective Thinking</b> (批判與反思)	<ul style="list-style-type: none"> <li>• Apply critical reasoning to issues through independent thought and informed judgment</li> <li>• Evaluate opinions, make decisions and to reflect critically on the justifications for decisions</li> <li>• Be able to judge situations/actions/decisions</li> <li>• Be self reflective</li> </ul>
<b>Creative and Innovative Thinking</b> (創造與創新)	<ul style="list-style-type: none"> <li>• Challenge new and old ideas</li> <li>• Practice risk-taking</li> <li>• Apply creative and innovative solutions to existing and emerging problems.</li> <li>• Initiate or solicit new ideas, implement decisions and cope with uncertainties.</li> <li>• Aesthetic appreciation and creative expression</li> </ul>
<b>Ethical Understanding and Decision Making</b> (道德判斷)	<ul style="list-style-type: none"> <li>• Demonstrate a knowledge and respect of ethics and ethical standards</li> <li>• Be able to value and promote truth, honesty, and ethical</li> </ul>

# 21st Century Competencies

Generic Outcome	Brief Description
Effective Communication (有效溝通)	<ul style="list-style-type: none"> <li>• Articulate and express one's self</li> <li>• Can express knowledge, ideas and opinions in their professional field, both orally and in written form, with confidence, fluency and clarity.</li> <li>• Be able to engage effectively and appropriately with information and communication technologies</li> <li>• Be able to actively listen and respond to the ideas of other people.</li> </ul>
Social Interaction Skills (社交互動能力)	<ul style="list-style-type: none"> <li>• Build positive relationships with others</li> <li>• Be able to interact effectively with others in order to work toward a common outcome</li> <li>• Show capacity for tolerance and mutual respect of others, resolving conflict and the negotiation of outcomes.</li> <li>• Demonstrate general human understanding including empathy, sensitivity and cooperation</li> </ul>
Global perspective and Multi-cultural Competence (全球視野及文化意識)	<ul style="list-style-type: none"> <li>• Show an understanding of social and civic responsibility</li> <li>• Show tolerance for and appreciation of cultural and intellectual diversity</li> <li>• Can function effectively and constructively in a global environment and in a variety of complex situations.</li> <li>• Be able to appreciate diversity of communication styles</li> </ul>

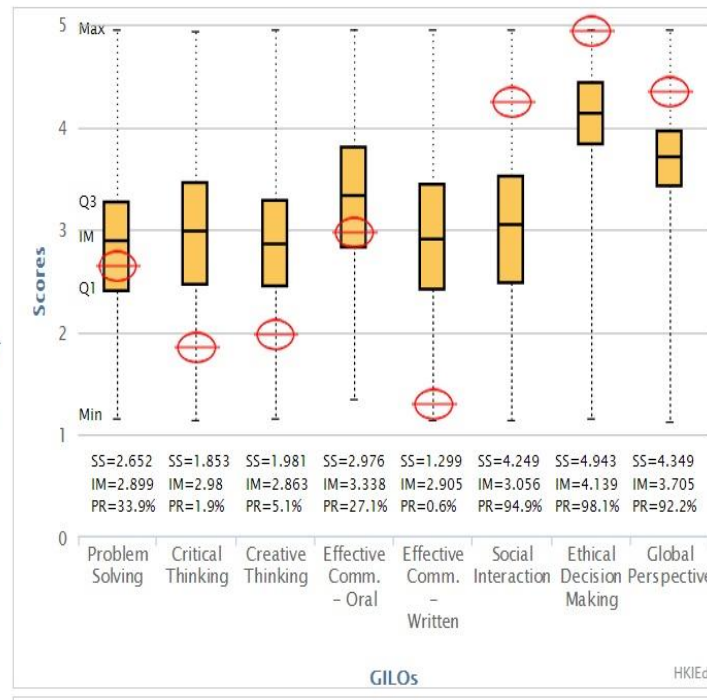
# 21<sup>st</sup> Century Competencies

## Your Self-Perception on Generic Intended Learning Outcomes

GILOs	Your Score	Prog. Mean Score	Instit. Mean Score	Your Percentile Rank (Institutional*)
GILO 1: Problem Solving Skills	2.652	2.844	2.899	33.9%
GILO 2: Critical Thinking Skills	1.853	2.861	2.98	1.9%
GILO 3: Creative Thinking Skills	1.981	2.794	2.863	5.1%
GILO 4(a): Oral Communication Skills	2.976	3.415	3.338	27.1%
GILO 4(b): Written Communication Skills	1.299	2.752	2.905	0.6%
GILO 5: Social Interaction Skills	4.249	3.217	3.056	94.9%
GILO 6: Ethical Decision Making	4.943	4.201	4.139	98.1%
GILO 7: Global Perspectives	4.349	3.691	3.705	92.2%

Note. \*The institutional norm is based on 1272 students who took the test in the fall semester, 2012. The five-point scale is "1=Poor; 2=Fair; 3=Good; 4=Very Good; 5=Excellent" for GILO 1 - GILO 5, and "1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree" for GILO 6 - GILO 7.

SS=your score, IM=institution mean score,  
 PR=your percentile rank among your  
 institutional peers, MIN= minimum score in  
 your institution, Max=maximum score in your  
 institution, Q1=first quartile of scores in  
 your institution, Q3=third quartile of scores  
 in your institution.





## Your Self-Perception on Generic Intended Learning Outcomes

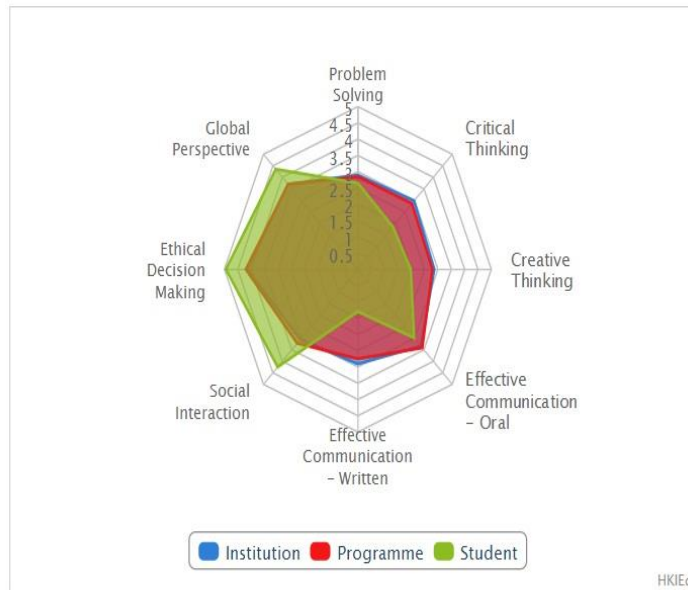
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### Overall

Based on your score in your entry year, among the eight GILOs within yourself, your top 3 strengths are Ethical Decision Making, Global Perspective and Social Interaction.

Based on your percentile rank within institution, compared to your peers in HKIEd, your top 3 strengths are Ethical Decision Making, Social Interaction and Global Perspective.



### GILO 1: Problem Solving Skills

Problem solving skills refer to the ability to deal with novel problems/tasks/situations, to plan with existing resources, to execute a plan and to monitor the process, and to reflect upon solution attempts.

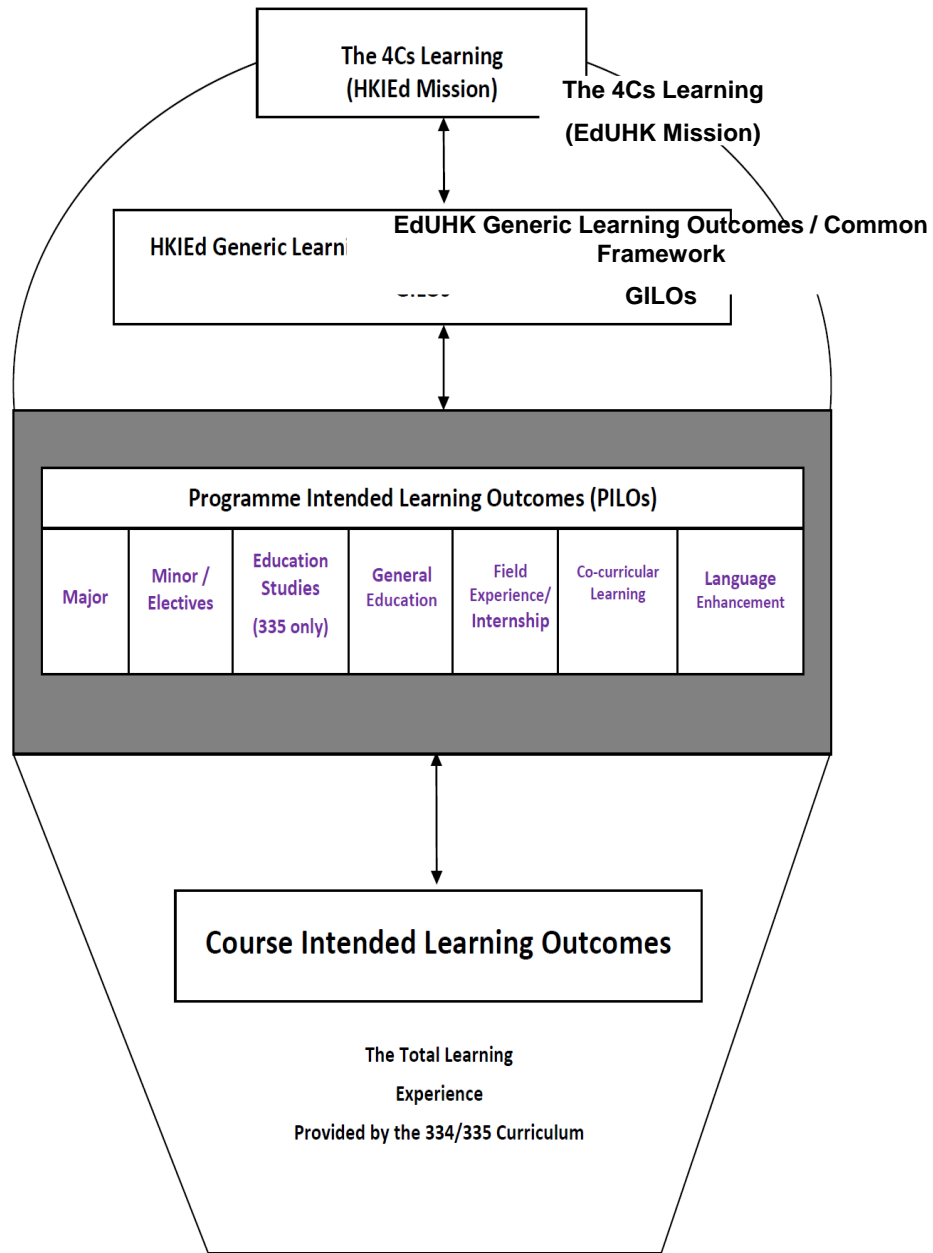
**Compare within Peers:** Your performance is higher than 33.9% of the students in your Institution.

**Score Interpretation:** Your score is 2.652.

You are able to understand a novel and ill-defined problem, to list multiple approaches with existing resources and select from or integrate them, and to review the process and judge the quality of outcomes against explicitly established criteria.

# Curriculum Alignment

- The curriculum provides a framework and guidance for a coherent set of learning experiences that enable students to achieve the outcomes linked to the requirements of an academic award.
- It guides the development of coherent programs where courses within a program are aligned to the program outcomes and the Institute's outcomes.
- A single course would not contribute to all the program outcomes; it is the different courses in the program that provide them with the opportunities to achieve the program outcomes.



# Curriculum Alignment

- Vertical Alignment (Course-Program-Institute Outcomes);
- Horizontal Alignment (Teaching, Learning & Assessment Strategies and Activities to Learning Outcomes); and

# Curriculum Alignment

Institutional Outcomes: The institution's expectations of all graduates irrespective of the programs they undertake. They may be associated to the 21<sup>st</sup> century competencies and may include:

- Problem-Solving
- Critical Thinking
- Creative and Innovative Thinking
- Social Interaction
- Global Perspective and Multi-cultural

# Curriculum Alignment

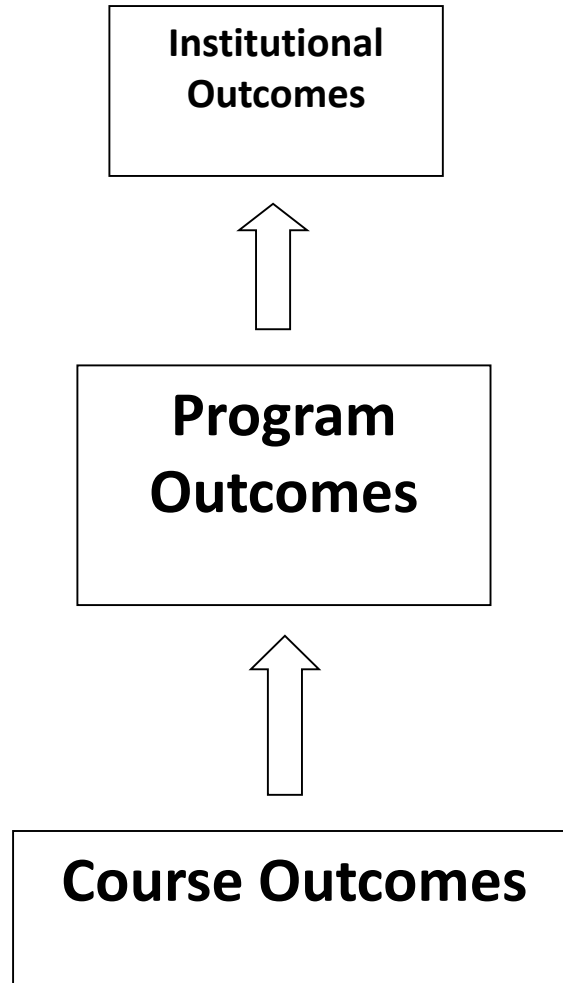
Program Outcomes: They reflect distinctive characteristics of graduates at the completion of their programs. They encompass the outcomes of the major and/or minor disciplines, plus expected outcomes for Field Experiences and Internships. They may include the outcomes of the co-curricular activities. E.g. BA (Creative Arts):

- apply acquired knowledge, skills and technologies to promote and develop the arts in local and global contexts; and
- demonstrate the ability to make informed and reasoned responses in addressing issues related to the arts in society.

# Curriculum Alignment

Course Outcomes: They identify how students may demonstrate achievement by the end of the course, according to predetermined standards of performance and content. They should be made explicit to learners and must guide the teaching, learning and assessment activities in the context of a course.

# Curriculum Alignment





# Curriculum Alignment

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>
<b>I01</b>					
<b>I02</b>					
<b>I03</b>					
<b>I04</b>					

# Curriculum Alignment

	<b>C1</b>	<b>C2</b>	<b>C3</b>	<b>C4</b>	<b>C5</b>	<b>C6</b>	<b>C7</b>
<b>PO1</b>							
<b>PO2</b>							
<b>PO3</b>							
<b>PO4</b>							
<b>PO5</b>							

# Curriculum Alignment

- Teaching, learning & assessment strategies and activities have to be aligned to course outcomes. This alignment is made explicit in course documents but more important, it has to become a reality in classroom practices.
- Activities such as lectures, laboratory work, tutorials, group assignments, simulations, and role play need to be chosen to support students in achieving the course outcomes.
- Assessments such as tests, essays, classroom presentations, lab experiment, and reflective writing journals have to be directly related to the assessment of specific course outcomes.

# Capacity of Teachers

The role of the higher education teachers is crucial for the successful implementation of higher education teaching and learning initiatives. While these teachers are experts in their respective fields, they may not have enough expertise and experience to plan for and implement quality teaching and learning in their courses. Continuing professional development (PD) is necessary.



# Scholarship of Teaching

- There is always a need for revision and refinement for quality enhancement of learning and teaching in higher education institutions. Research and evaluation may take the perspectives of learning analytics to provide evidences about engagement and outcomes, and hence, provide teachers and leaders with the information to make decisions about higher education teaching and learning practices, policies and support.
- Case studies may be conducted by research groups at the institutional level to understand best practices of experienced teachers in order to inform other teachers who are exploring innovative practices in their own courses. Teachers may engage in action research to gauge their own initiative for change.

**Conclusion**

# Conclusion

Addressing issues of quality, equity, and efficiency goes far beyond the implementation of a particular initiative or innovation; rather, a holistic approach has to be taken by institutional leaders and higher education policy-makers. It is only then promising practices in higher education teaching and learning could be sustained and scaled up.

# THANK YOU!!!



Lim Cher Ping  
Chair Professor of Learning  
Technologies and Innovation  
The Education University of Hong Kong

[clim@eduhk.hk](mailto:clim@eduhk.hk)

<http://ied.academia.edu/CherPingLim>

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