

Prof. Rex Li's Writings

Category: Education

Sub-category: Global Education

Code: Edu 02 – 001

Title: 21st Century Education and G.T. College

Year Written: 2020

Summary/ Abstract: This is a PPT of my talk in April 2020. It outlines global perspectives, latest development and G.T.'s position. Find the talk in www.profrexli.com

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21st Century Education and G.T. College

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(Senior Form)

1 April 2020

Talk Outline

Part A: Global perspectives	Prof. Li
Part B: First World perspectives	Prof. Li
Part C: Latest development	Dr. Cheng
Part D: G.T. in the 21st Century	Prof. Li



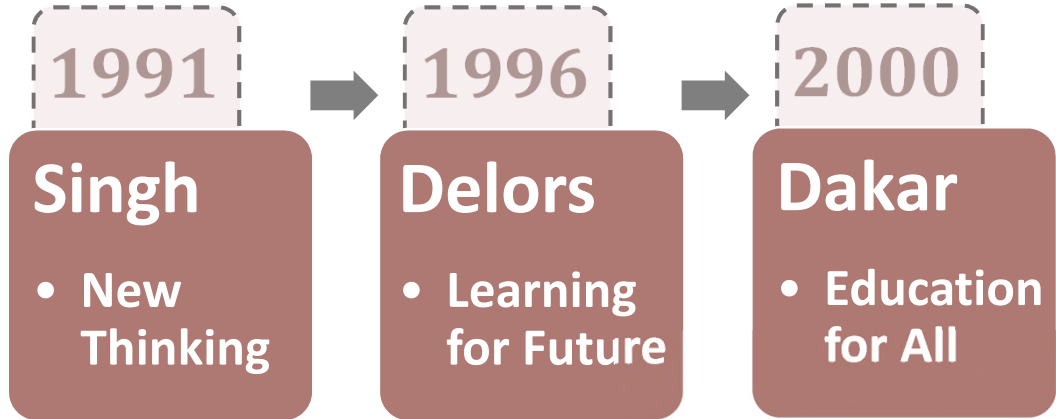
Part A

- Part A -

Global perspectives

Prof. Li

A / Global Perspectives



A / Global Perspectives

2015

Incheon

- Education 2030 Agenda: A New Vision for Education



2018

IBE-UNESCO

- Global Paradigm Shift

United Nations

A / Global Perspectives

1991 Education for the 21st Asia-Pacific Perspectives
By Raja Roy Singh (1991) UNESCO

New Thinking

- 1 “The new thinking has to be **INTEGRATION**” (p.41)
- 2 The wholeness = “**Integrated Education**” = 21st Century Education
- 3 Criticizes existing values of **effectiveness and efficiency** (p.79)
- 4 Proposes **human values** in personal and social integration



- ❖ Economic, human, environmental and social well-being are integrated;
- ❖ Materials and mind are integrated in development;
- ❖ Education is integral in all development;
- ❖ The purpose of education and development is identical; i.e., to produce learning persons and a learning society.

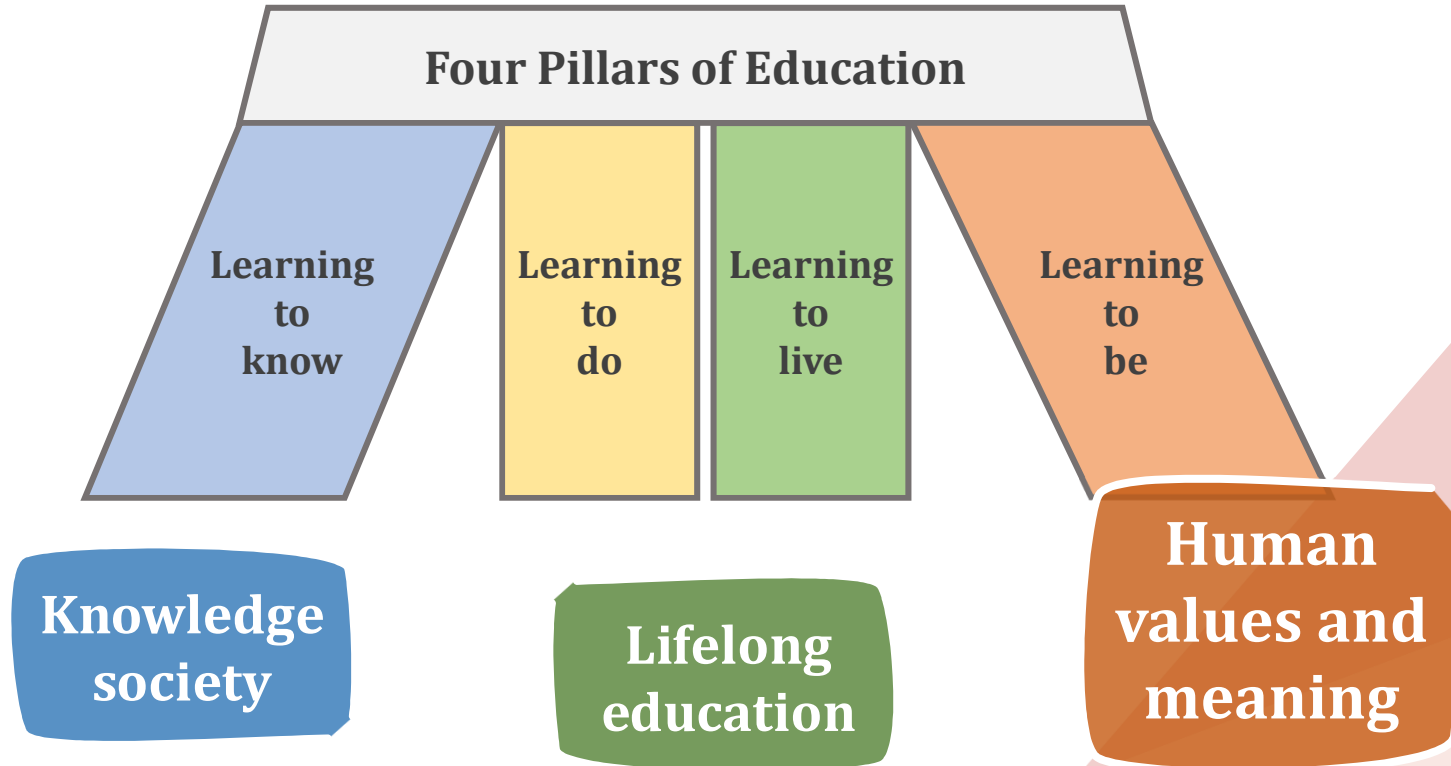
A / Global Perspectives



Moral Vision	Personal Values	Social
<ul style="list-style-type: none">• Knowledge• Beauty• Truth• Virtue• Love• Justices• Freedom	<ul style="list-style-type: none">• Integrity• Care and compassion• Self-understanding• Self restraint• Respect of life and individuality	<ul style="list-style-type: none">• Social responsibility• Tolerance• Co-operation• Public good <p>(p. 79)</p>

A / Global Perspectives

International Commission on Education for 21st Century
By Jacque Delors (1996)



A / Global Perspectives

World Education Forum Dakar Framework
UNESCO, April 2000

Education For All (EFA)

Six Goals



- ❖ Goal 1: Expand early childhood care and education
- ❖ Goal 2: Provide free and compulsory primary education for all
- ❖ Goal 3: Promote learning and life skills for young people and adults
- ❖ Goal 4: Increase adult literacy by 50 percent
- ❖ Goal 5: Achieve gender parity by 2005, gender equality by 2015
- ❖ Goal 6: Improve the quality of education

UN Perspective for the globe:

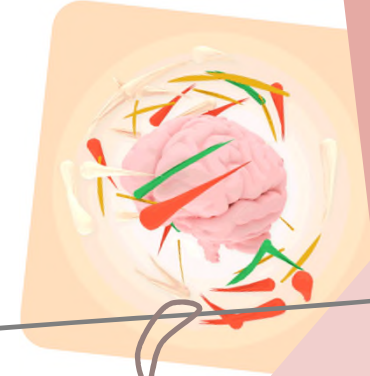
- Wiping out illiteracy
- Education for all
- Gender equality

A / Global Perspectives

Incheon Declaration,
World Education Forum 2015

Education 2030

- Logical continuation of EFA and MDG*
- Education 2030 Framework for Action



Equitable
Quality
Education

Life-long
Learning

12-year
Primary &
Secondary
Education

Distance
Learning in
Tertiary
Education
(MOOCS)

*MDG are eight (8) Millennium Development Goals adopted by the United Nation in 2000, succeeded by Sustainable Development Goals (SDG) in 2016.

A / Global Perspectives

- 1 Universal primary & secondary education
- 2 Early childhood development & universal pre-primary education
- 3 Equal access to technical/vocational & higher education
- 4 Relevant skills for decent work
- 5 Gender equality & inclusion



10 Targets of Education 2030

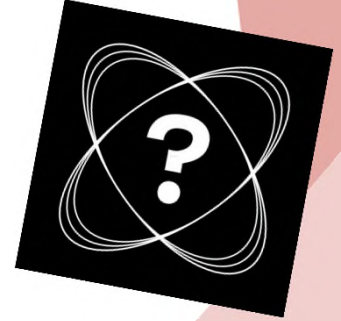
- 6 Universal youth & adult literacy
- 7 Education for sustainable development & global citizenship
- 8 Effective learning environments
- 9 Increase scholarship
- 10 Increase the supply of qualified teachers

A / Global Perspectives

*Reconceptualizing and Repositioning
Curriculum in the 21st Century
IBE 2018*

International Bureau of Education (IBE – UNESCO)

Global Paradigm Shift In Curriculum



- 1 12 Drivers of Change (IT, Industry 4.0, neuroscience, etc.)
- 2 Future competences
- 3 Curriculum as spearhead of innovation for future society
- 4 Reconceptualization in 8 domains (sustainability, lifelong learning, etc.)

A / Global Perspectives

Overall Observation

On the whole, UN is moving from Western intellectual perspective to **global real life perspective**

UN becomes a **3rd world club** and is **3rd world-oriented**

Global education values have emerged:

- Sustainable development & lifestyle
- Human rights
- Gender equality
- Peace & non-violence
- Global citizenship
- Cultural diversity





DONALD
TRUMP

3rd World Sinks USA

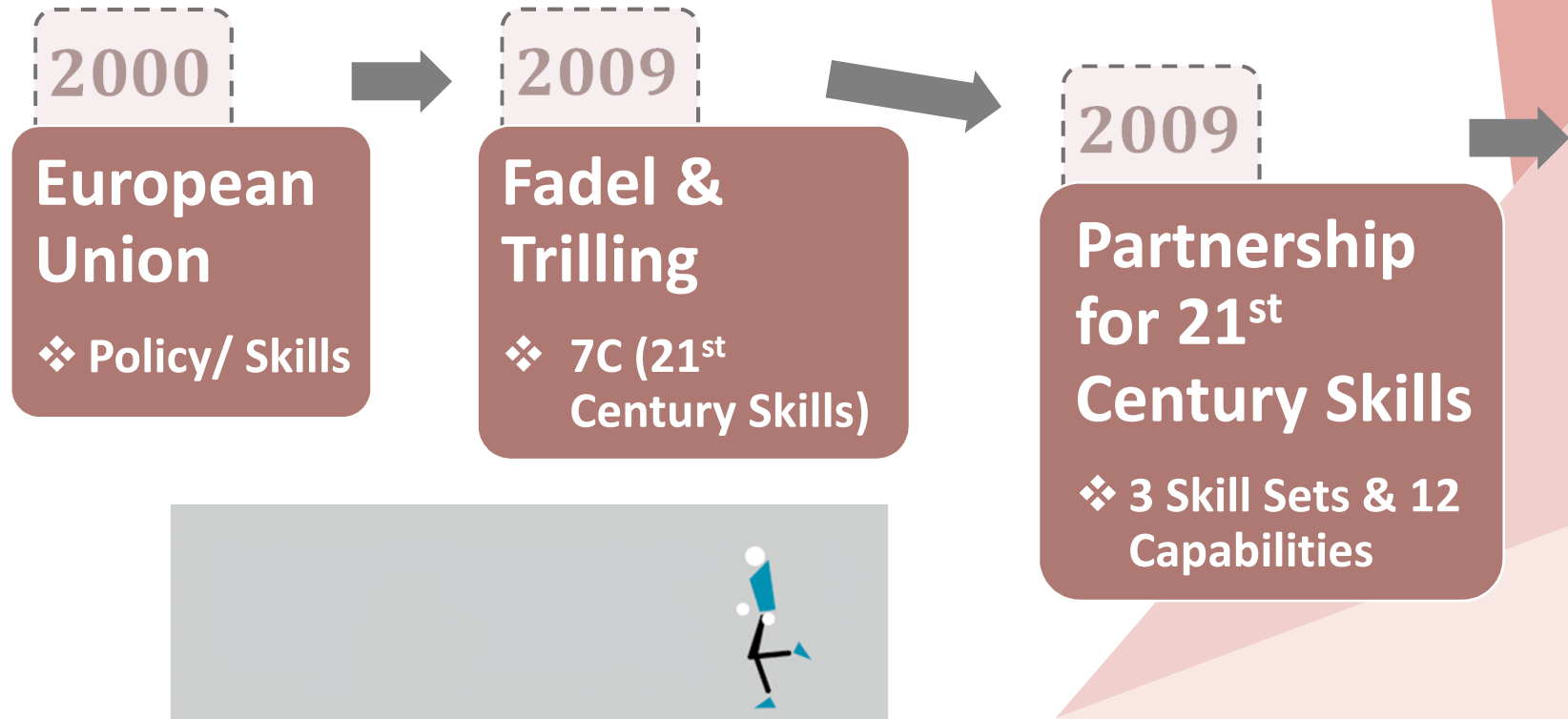
Part B

- Part B -

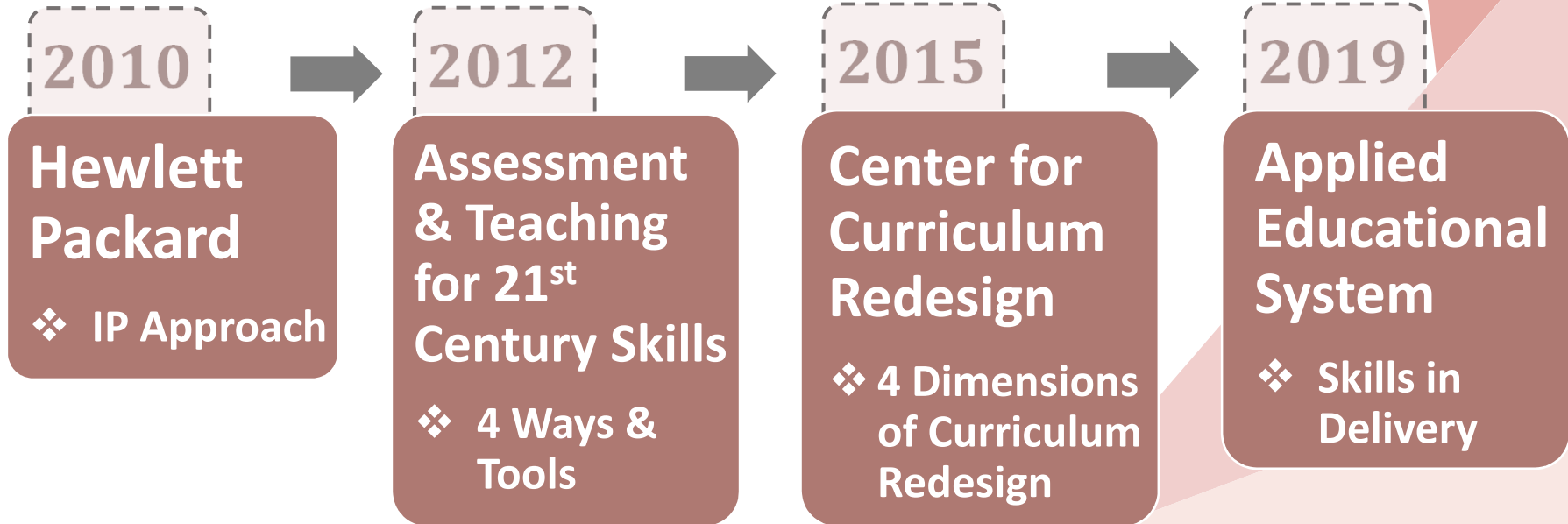
First World perspectives

Prof. Li

B / First World Perspectives



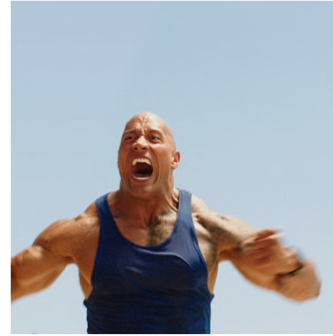
B / First World Perspectives



B / First World Perspectives

Presidency Conclusion European Council
Lisbon, 2000

European Union (2000)



Education Policy

- **Competition**
- **Knowledge economy**
- **New education competences**
- **Education as economic strategy**
- **Lifelong learning**

Skills

- **ICT**
- **Foreign language learning**
- **Technology competency**
- **Entrepreneurship**
- **Social skills**

B / First World Perspectives

Trilling, B and Fadel, C. (2009)
21st Century Skills: Learning for Life in our times

Fadel & Trilling (2009)



7Cs

- Critical Thinking and Problem-solving
- Creativity and Innovation
- Collaboration, Teamwork, and Leadership
- Cross-cultural Understanding
- Communication and Media Fluency
- Computing and ICT Fluency
- Career and Learning Self-reliance





The Sea of Knowledge and culture

B / First World Perspectives



Partnership for 21st Century Skills (2009)

3 Skill Sets and 12 Capabilities

Learning & Innovation	Digital Literacies	Life & Career Skills
<ul style="list-style-type: none">• Core Subjects• Critical Thinking & Problem Solving• Communication & Collaboration• Creativity & Innovation	<ul style="list-style-type: none">• Information Literacy• Media Literacy• Information & Communication Technology Literacy	<ul style="list-style-type: none">• Flexibility & Adaptability• Initiative & Self-direction• Social & Cross-cultural Interaction• Productivity & Accountability• Leadership & Responsibility

B / First World Perspectives

Meg Whitman
HPE CEO

Hewlett Packard (2009)

Information Processing Approach

- Analytic skills
- Interpersonal skills
- Ability to execute
- Information processing
- Capacity for change



IT Certification
Self-paced learning
Future University



B / First World Perspectives

Assessment and Teaching of
Twenty-first Century Skills [ATCS]
(Griffin *et al.* (2012))

Assessment and Teaching of 21st Century Skills (2012)

University of Melbourne (sponsored by Cisco, Intel, Microsoft)

Use Technology to Transform Assessment System & Education



Teaching &
Assessment

- Ways of Thinking
- Ways of Working
- Tools for Working
- Living in the World

B / First World Perspectives

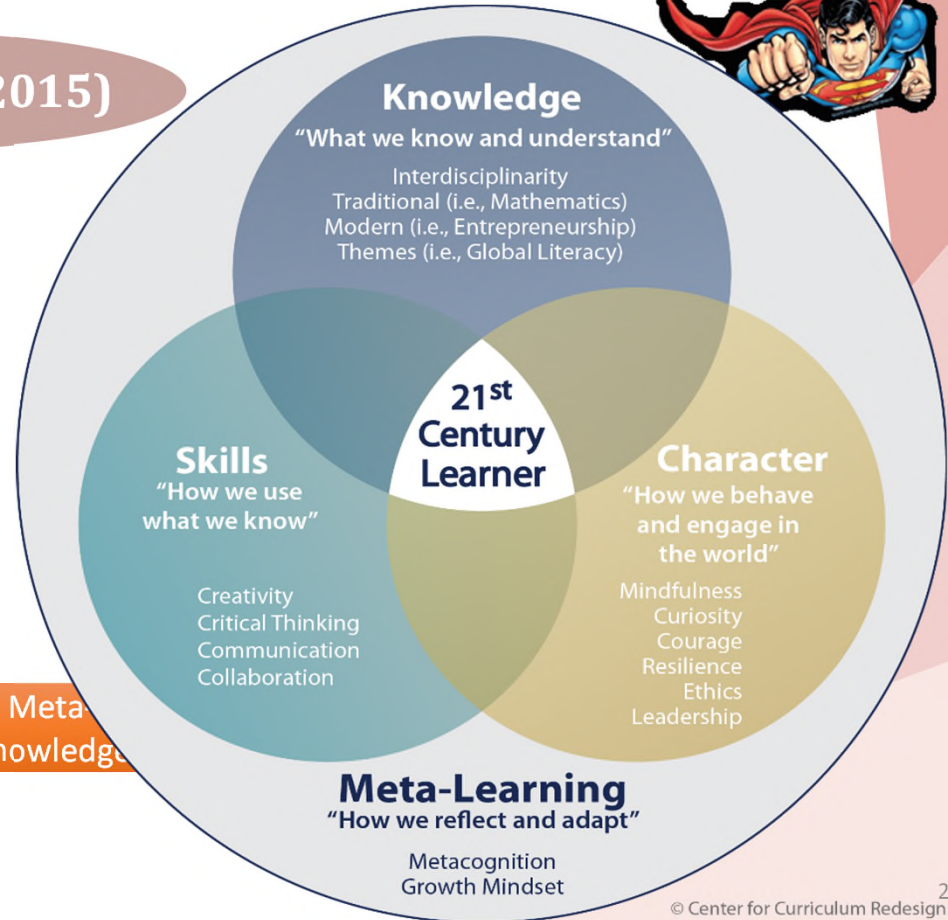
Center for Curriculum Redesign (2015)



1 Education is behind technological progress

2 Curriculum needs depth and versatility

3 Proposed 4 dimensions of curriculum



Ideas



Knowledge



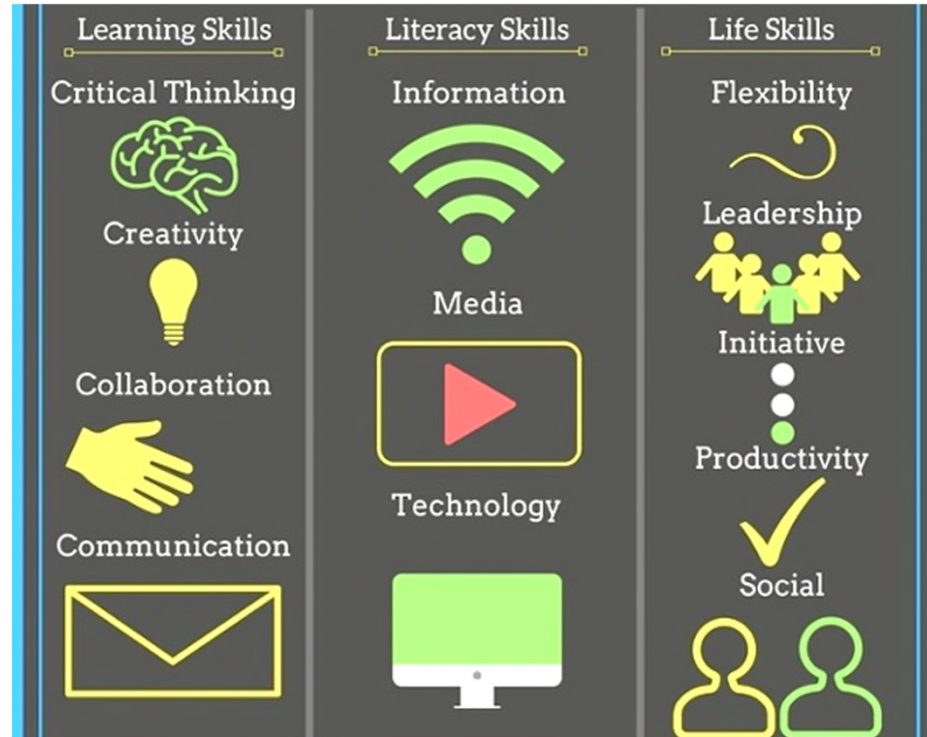
Meta Knowledge

B / First World Perspectives

21st Century Skills

Applied Educational System (2019)

Skills in
Delivery



B / First World Perspectives

Observation

- The business concerns are skills needed for future business
- Human values / morality are ignored

Part C

- Part C -

Latest development

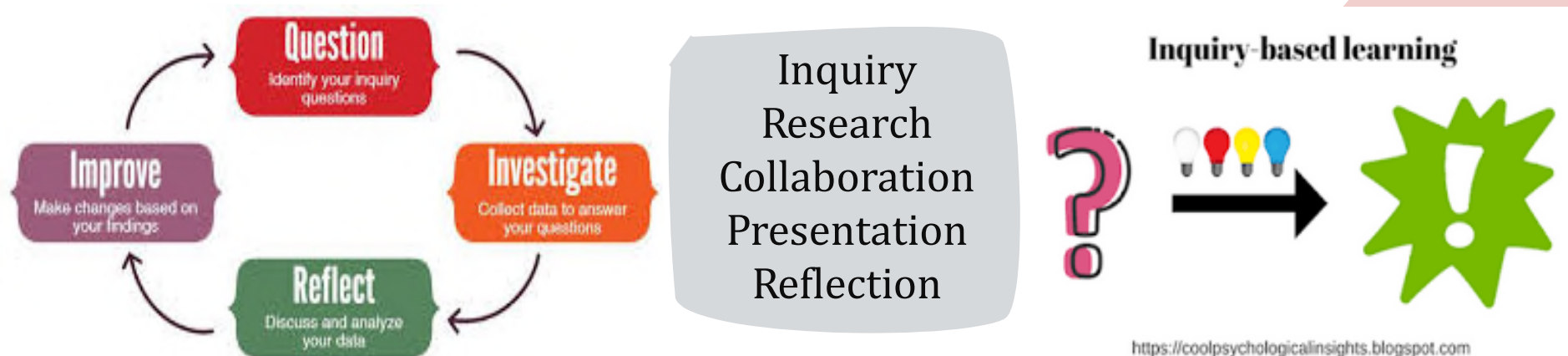
Dr. Cheng

C / Latest Development

Larissa Pahomov in *Authentic Learning in the Digital Age*
(2016, p.10-11)

(1) Inquiry-based Learning with 5 Core Values

- The **five core values** serve as the anchor for teaching and learning in the new century



<https://coolpsychologicalinsights.blogspot.com>

C / Latest Development

(1) Inquiry-based Learning with 5 Steps

To inquire

Authentic learning
with legitimate
desire to gain
knowledge or skills

To research

Collect, interpret,
identify and
assess data

To collaborate

Working together,
helps develop
interpersonal skills

To present

Essential to
professional and
personal
development

To reflect

Ensure that
students improve
with each cycle of
learning

C / Latest Development

(2) Project-based Learning with 7 Elements

7 elements of 21st education → 7 Skills needed

<https://www.youtube.com/watch?v=ypSNpiW2qRs>



C / Summary: 7 Elements



Integrated subjects



Technology



Hands-on learning



Collaboration



Student-centred learning



Creativity



Entrepreneurship

C / Latest Development

Mynbayeva, A. (2018).

Pedagogy of the 21st Century: Innovative Teaching Method.

(3) New Social Context

Twentieth Century Generation	New Generation
<ul style="list-style-type: none">▪ Books → mental perception▪ Intellectual perception via reading▪ Independence▪ Passive school▪ Reality▪ Fact awareness	<ul style="list-style-type: none">▪ Tablets – visual perception▪ Iconic perception▪ Connection▪ School as game▪ Fantasies▪ Know how to find something necessary

**Learning by
connection and
network community**

C / Latest Development

(4) New School Practices

Mynbayeva, A. (2018).
Pedagogy of the 21st Century: Innovative Teaching Method.

Traditional School Practice	New School Practice
<ul style="list-style-type: none">▪ Paper & Pencil▪ Traditional media, e-mail▪ Limited textbook content▪ Individual performance▪ Closed classroom community▪ Knowledge acquisition	<ul style="list-style-type: none">▪ Working on screen▪ Flexible use of digital media▪ Internet searches▪ Making and sharing in groups▪ Extended networks▪ Knowledge creation

New School Practice

Knowledge acquisition



Knowledge creation

Creating knowledge



Self-publish

C / Latest Development

(5) 5 Minds for the Future

Gardner, H. (2008). *Five Minds for the Future*.
Boston: Harvard Business School Publishing.

21st Century Generation	Generation ___X___Y___Z___
<ul style="list-style-type: none">▪ Authority vs Diversity▪ Innovation vs Integration▪ Localization vs Globalization▪ Multiplicity vs minimalism▪ Self-interest vs Others-interest	<ul style="list-style-type: none">▪ The Disciplined mind▪ The Creating mind▪ The Synthesizing mind▪ The Respectful mind▪ The Ethical mind

MI for the future??

Authority **VS** Diversity

Innovation **VS** Integration

Localization **VS** Globalization


Self-interest **VS** Others-interest

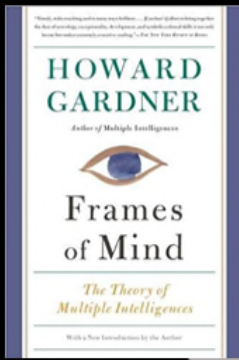
Multiplicity **VS** Minimalism

C / Latest Development

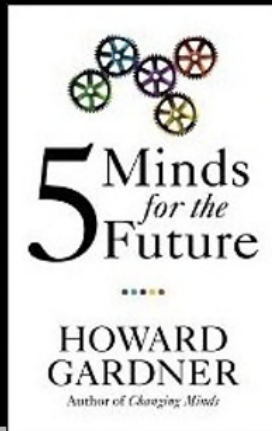
(6) MI in GT curriculum

Gardner, H. (2008). *Five Minds for the Future*. Boston: Harvard Business School Publishing.

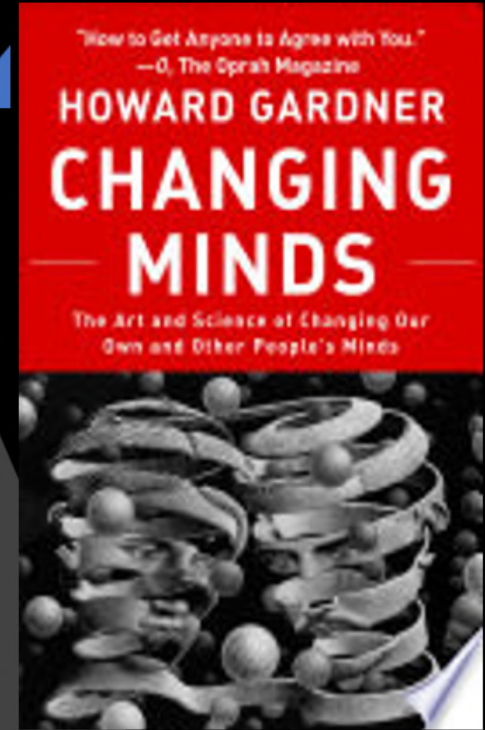
21st Century Generation	The Century to come	GT Curriculum
<ul style="list-style-type: none">▪ Authority vs Diversity▪ Innovation vs Integration▪ Localization vs Globalization▪ Multiplicity vs minimalism▪ Self-interest vs Others-interest	<ul style="list-style-type: none">▪ The Disciplined mind▪ The Creating mind▪ The Synthesizing mind▪ The Respectful mind▪ The Ethical mind	



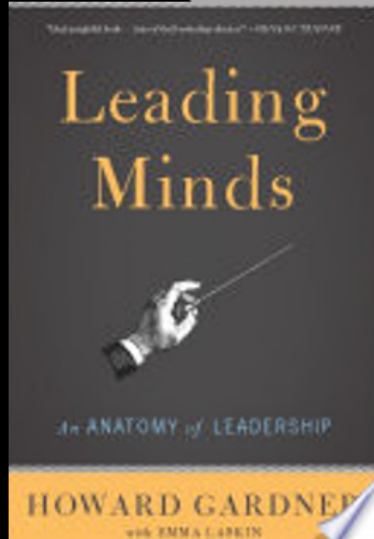
1983



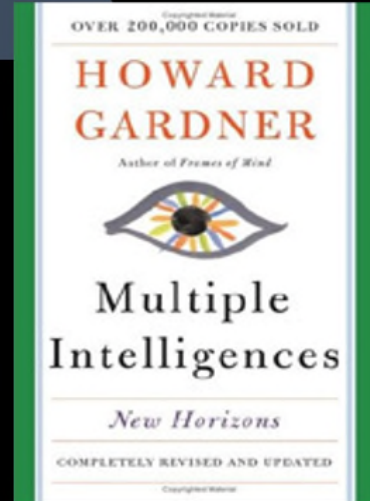
2005



2004



1995



1993

Books of Howard Gardner

—all the most famous books of Howard Gardner

C / Latest Development

(6) MI in GT curriculum

Gardner, H. (2008). *Five Minds for the Future*. Boston: Harvard Business School Publishing.

21st Century Generation	The Century to come	GT Curriculum
<ul style="list-style-type: none">▪ Authority vs Diversity▪ Innovation vs Integration▪ Localization vs Globalization▪ Multiplicity vs minimalism▪ Self-interest vs Others-interest	<ul style="list-style-type: none">▪ The Disciplined mind▪ The Creating mind▪ The Synthesizing mind▪ The Respectful mind▪ The Ethical mind	<ul style="list-style-type: none">▪ School-based Curriculum (Science, Maths, Lang)▪ Differentiated programs for all students (TC class)▪ Exchange programs for all students (inbound and outbound)▪ Community services inside and outside HK▪ Values education

Future
HOWARD
GARDNER

Gardner's ideas about the minds



Part D

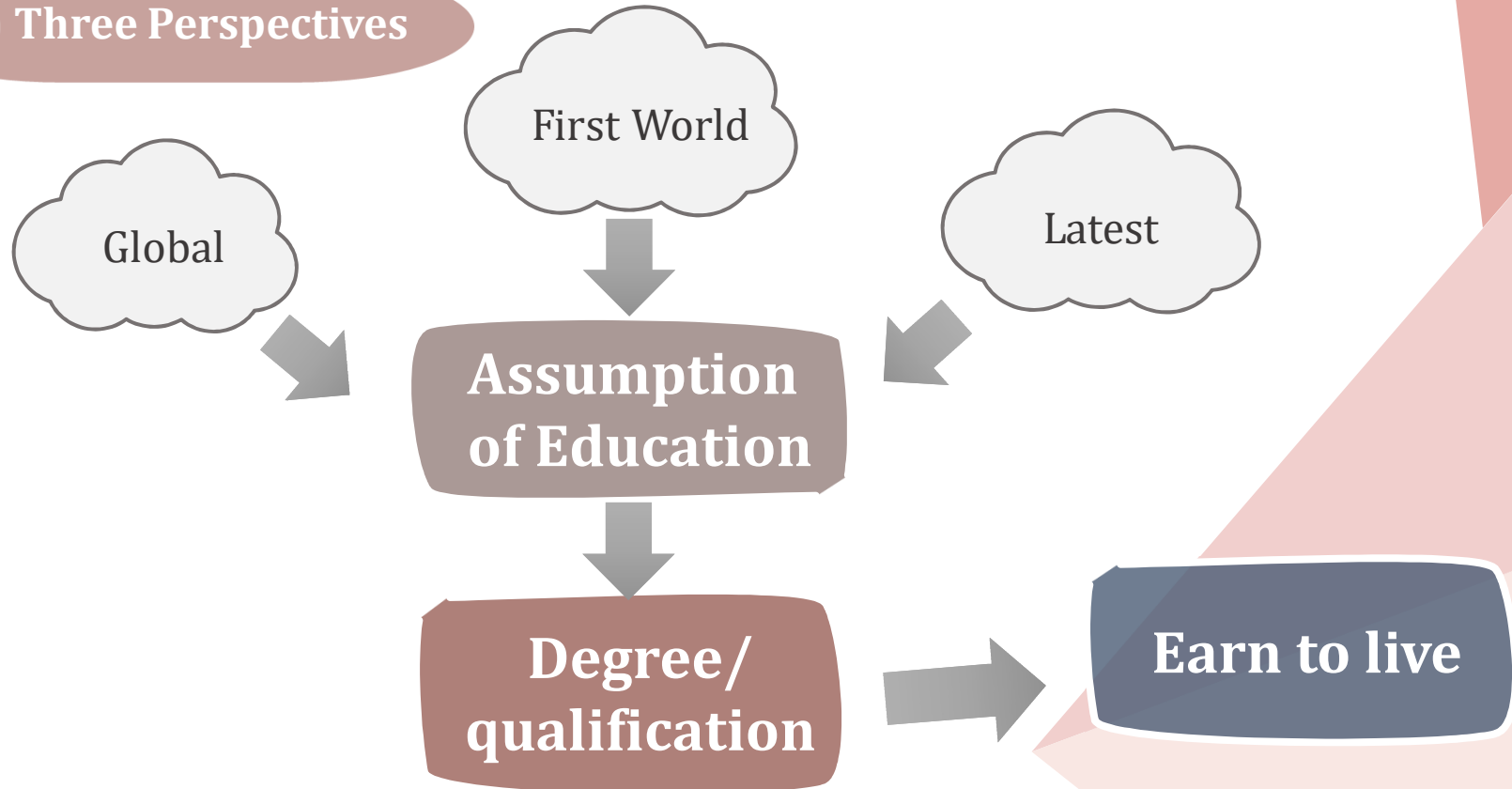
- Part D -

G.T. in the 21st Century

Prof. Li

D / G.T. in the 21st Century

(1) Three Perspectives



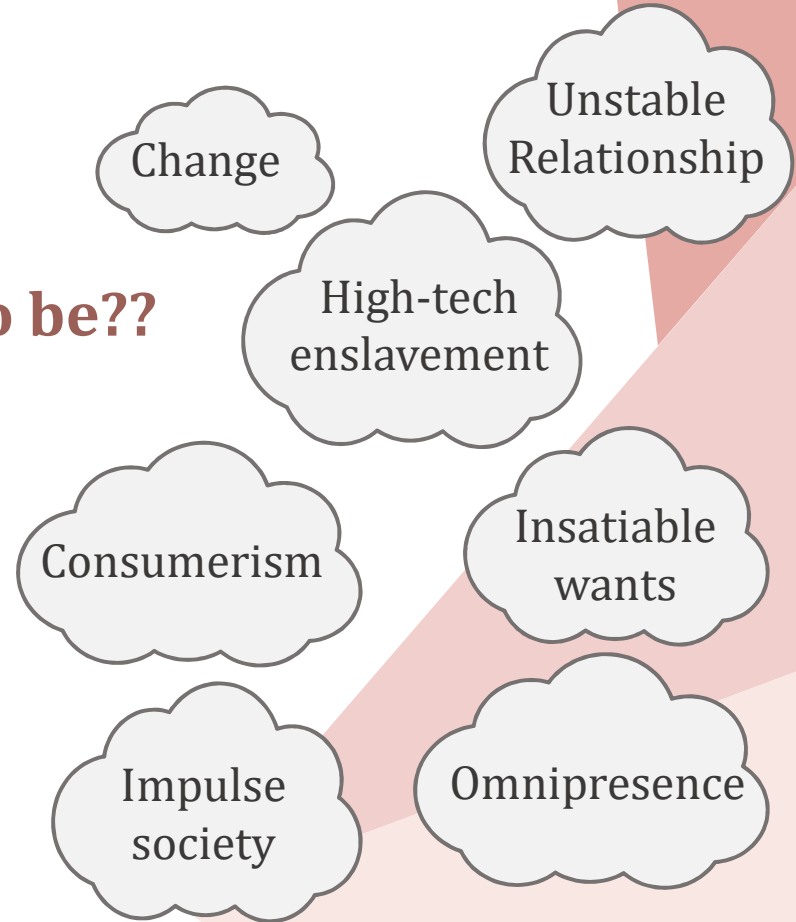
D / G.T. in the 21st Century

(1) Education & Learning for What?

❖ **Basic Question:**
Learning to earn or Learning to be??



- ❖ What kind of life do we want?
- ❖ What values do we pursue?
- ❖ What future society do we want?



D / G.T. in the 21st Century

(1) Education & Learning for What?

For a better society, Education is to learn:

- ❖ To **communicate** and **collaborate**
- ❖ To live with **others**
- ❖ To live with **oneself** (self-understanding)
- ❖ To pursue **values** and **meanings**

Learning
to be

G.T. students succeed in learning to earn. They are now learning to be .

D / G.T. in the 21st Century

(1) Education & Learning for What?

Human Values

- Love
- Truth
- Virtue
- Beauty
- Responsibility
- Respect

Global Values

- Sustainability
- Global citizenship
- Cultural diversity
- Human rights & equity
- Peace



G.T. (Ellen Yeung) College

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