Design Engineering Society Event Peter Cheung's Philosophical Powwow

#2 Thinking About Education & Learning

Peter Y K Cheung

Professor of Digital Systems

Dyson School of Design Engineering &

Department of Electrical & Electronic Engineering

6 topics on thinking

- Thinking about **THINKING**
- Thinking about **EDUCATION & LEARNING**
- Thinking about TIME
- Thinking about **SELF**

PYKC 5 March 2018

- Thinking about **RELATIONSHIP**
- Thinking about **PURPOSE**

4 Messages on "Thinking about thinking"

- Thinking is hard work (The idea of thinking fast and slow by Kahneman)
- Conceptual blending for creative thinking (learn different ways of thinking – blend things together)
- Strive to think at higher levels of abstraction (ask the more general question, think beyond problem in hand)
- Anyone can learn to think better (big decision vs everyday decisions)

What are universities for?

The Guardian

Harriet Swain

Mon 10 Oct 2011

Should universities be about learning for its own sake?

- Humboldt (German philosopher 1810)
 "... community of scholars engaged in a common search for truth and knowledge ..."
- Newman (Cardinal 1852)
 "... teaching universal knowledge ..."
- Robbins (Economist 1963)
 - 1) "... instruction in skills
 - 2) promotion of the general powers of the mind
 - 3) advancement of learning
 - 4) transmission of a common culture and standards of citizenship"

What is the purpose of a university education?

- To obtain a qualification and get good grades
- To learn about a subject (and its relevant topics)
- 3. To be equipped for a good job in future
- To learn how to learn
- To learn how to think for oneself
- To become smarter
- To satisfy one's parents
- To become a better person

Message 1: University Education is NOT about grades or assignments (1)



EastsidePrep

x = independently organized TED event

https://www.youtube.com/watch?v=R wg29z7yVw&t=638s



Message 1: University Education is NOT about grades or assignments (2)

- Not about knowing the correct answer
- It is about finding YOUR OWN correct answers
- Even more importantly, it is about ASKING THE CORRECT QUESTIONS

Message 2: University Education is NOT about skills or preparation for a JOB (1)

hand-drawn by MinuteVideos.com

What Skills Do We Need? UNESCO

https://www.youtube.com/watch?v=Ui_rzJ8OYNc



Message 2: University Education is NOT about skills or preparation for a JOB (2)

- Not mainly about knowing the correct answers
- It is about FINDING YOUR OWN correct answers
- Even more importantly, it is about ASKING THE CORRECT QUESTIONS

Message 3: University education should make you smart

- Smart difficult to define
- Smart means knowledgeable about many things
- Smart means able to think logically, critically, methodically, rationally, creatively ...
- Smart means NOT BEING IGNORANT ABOUT YOUR IGNORANCE
- Know what you know, and know what you don't know

Message 4: University education should build your confidence

- Confident but ignorant makes you arrogant
- Being confident means:
 - 1. You dare to go where you have not gone before
 - 2. You innovate beyond common practices
 - 3. You accept your weaknesses
 - You are not afraid of failure

A final video by Sir Ken Robinson on Intelligence & Education



https://www.youtube.com/watch?v=nmCD1HyabDw

Epilogue

Care more about what you become than what you know.