

# The Only Way to Create the Skills of the Future is to Disrupt the Education of Today

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*December 18, 2019*



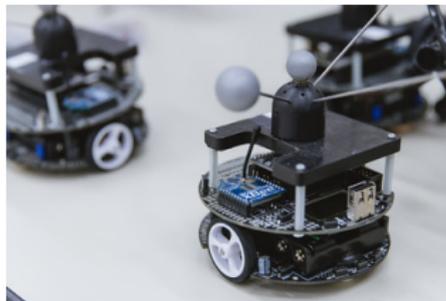


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# A Big Contrast

Teaching **in the past**...

Education **1.0**



Industry **4.0**

# The Digital World

Teaching **the wrong skills...**



**Extended Consciousness**



**Digital Gap**



# Future

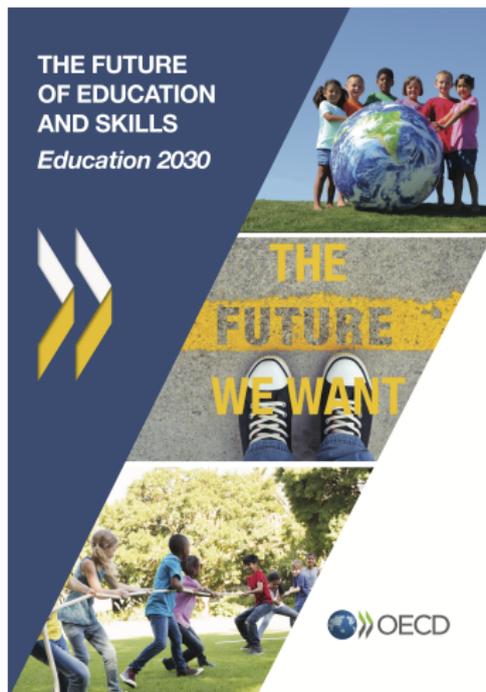


*“Education is the passport to the future, for tomorrow belongs to those who prepare for it today.” — Malcolm X*

# Disrupting Education

**What?**

*Knowledge  
Skills  
Attitudes  
Values*



**How?**

*Instructional  
system*

# The MOOCs (r)Evolution



## Traditional on-site course

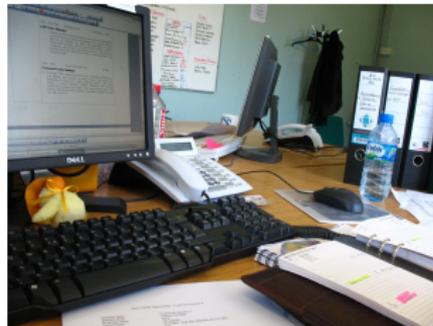
Passive learners

Professor delivers content

Professor coaches learners

Active learners

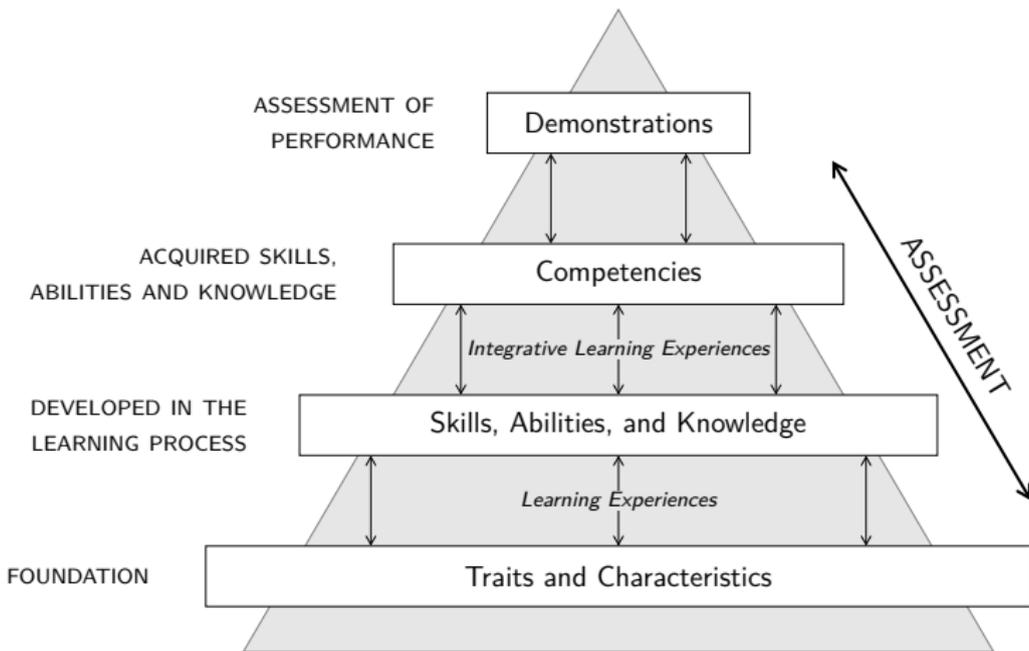
**MOOC**



*“Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is most important.” — Bill Gates*



# Learning Model

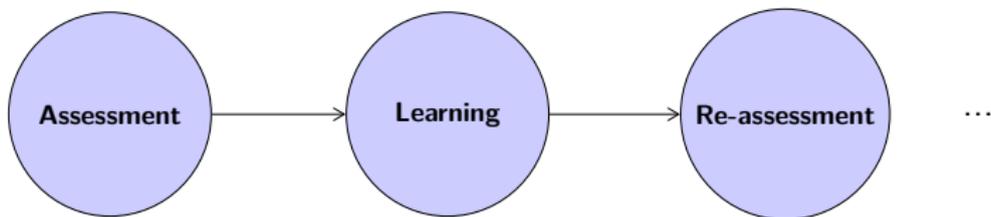


Source: U.S. Department of Education, 2001.

# Competency

Definition of **competency** according to NPEC work group

*“a combination of  
skills, abilities, and knowledge  
needed to perform a **specific task.**”*



# Competency Based Assessment

UDKA **beta**

Courses ▾

 Sébastien Combéfis ▾

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## Introduction to Quantum Computing with IBM Q Experience

[Evaluate](#)

Basic competency

Advanced competency

**QC101** – Understand the notions of qubit, qubit state and qubit system.

☆☆☆☆☆

**QC102** – Understand the superposition and entanglement operations.

★★★★☆

**QC201** – Understand the notions quantum logic gate and perform simple operations on quantum circuits (X, H, CNOT).

★★★★★

**QC401** – Program a quantum circuit with IBM Q Experience and simulate it.

☆☆☆☆☆

### Information

 Yannis Argyrakis

 Tue Dec 3, 2019

### Progress



Powered by Sébastien Combéfis.

***“Success is not final, failure is not fatal: it is the courage to continue that counts.” — Winston Churchill***



# $\mu$ Course

**Customised Choice**



PM701 $\mu$  Design Thinking Approach  
for Computer Science Projects

**Session 1**  
**Design Thinking Process  
and Problem Solving**

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*Fall 2019*



QC101 $\mu$  Introduction to Quantum  
Computing with IBM Q Experience

**Session 1**  
**Quantum Computing,  
Qubits and Operations**

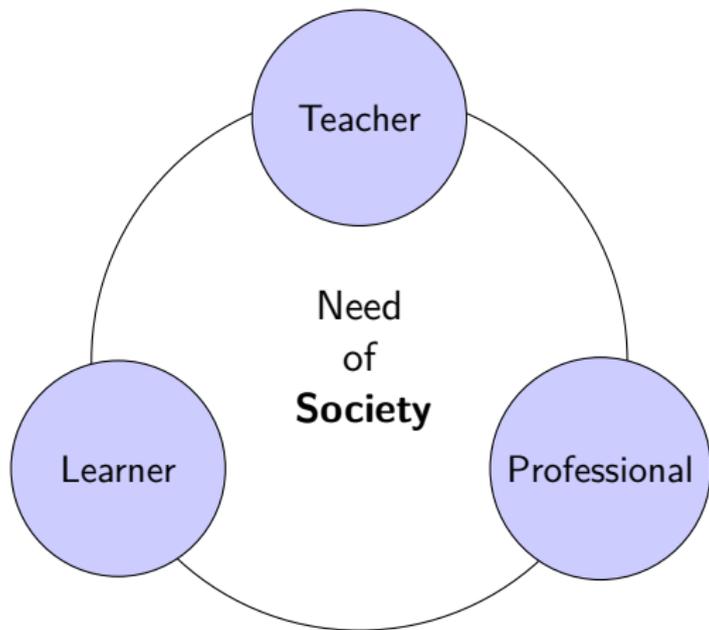
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*Fall 2019*

**Smaller Unit**

# Disruptive Education

Personalised, individualised, accessible, innovative, etc.



# Future Skills

Rapidly **changing world**...

with environmental, economic and social challenges



**Soft Skills**

**The end of “pure” knowledge...**



**Leadership Skills**

# Future Schools

Focusing on **the learner**...

with sense of responsibility to participate in the world



**Innovation**

**The end of “vertical” education...**



**Motivation**

*"The best way to predict the future  
is to invent it." — Alan Kay*

FUTURE



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