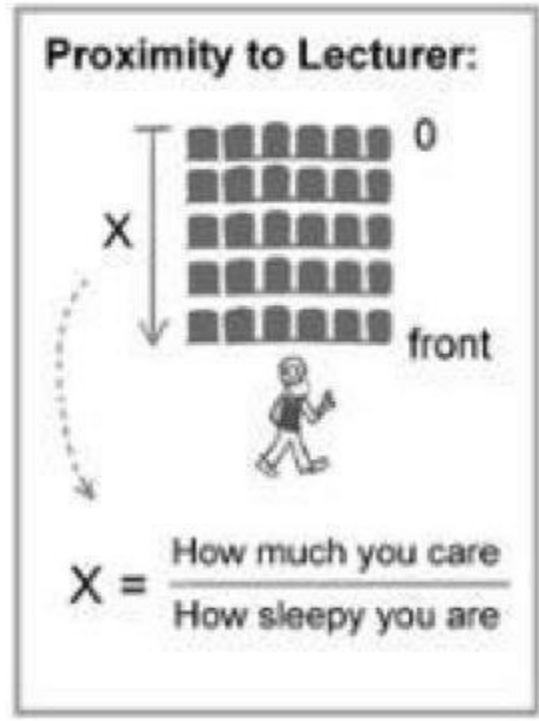
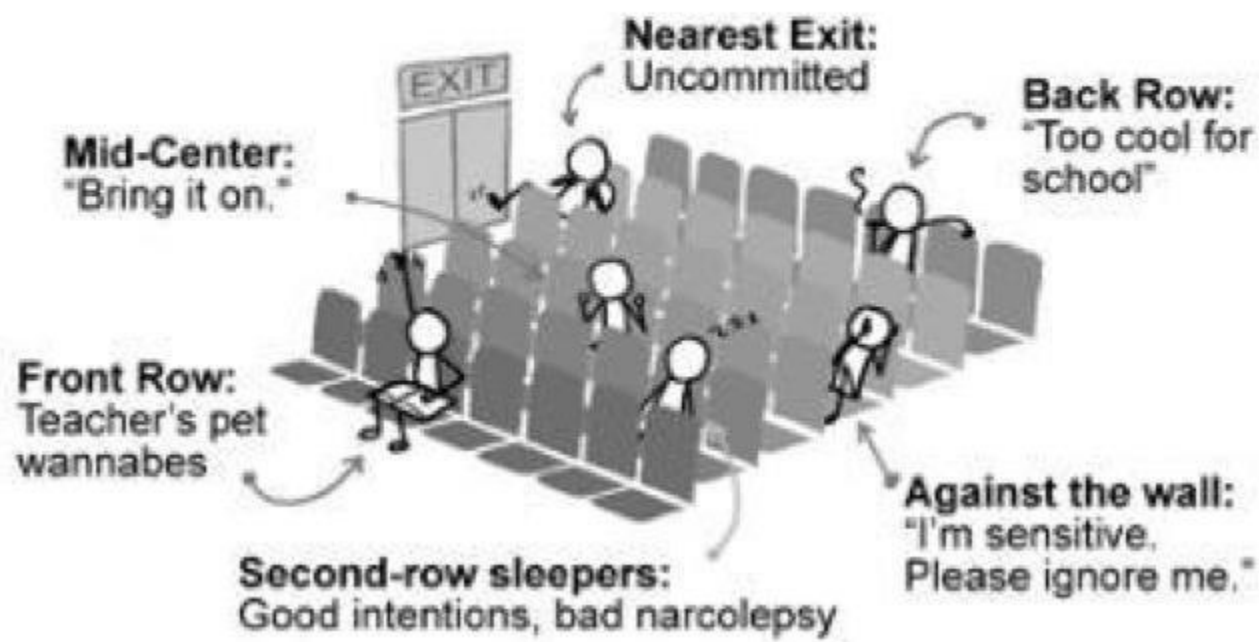


**Making e-Learning**

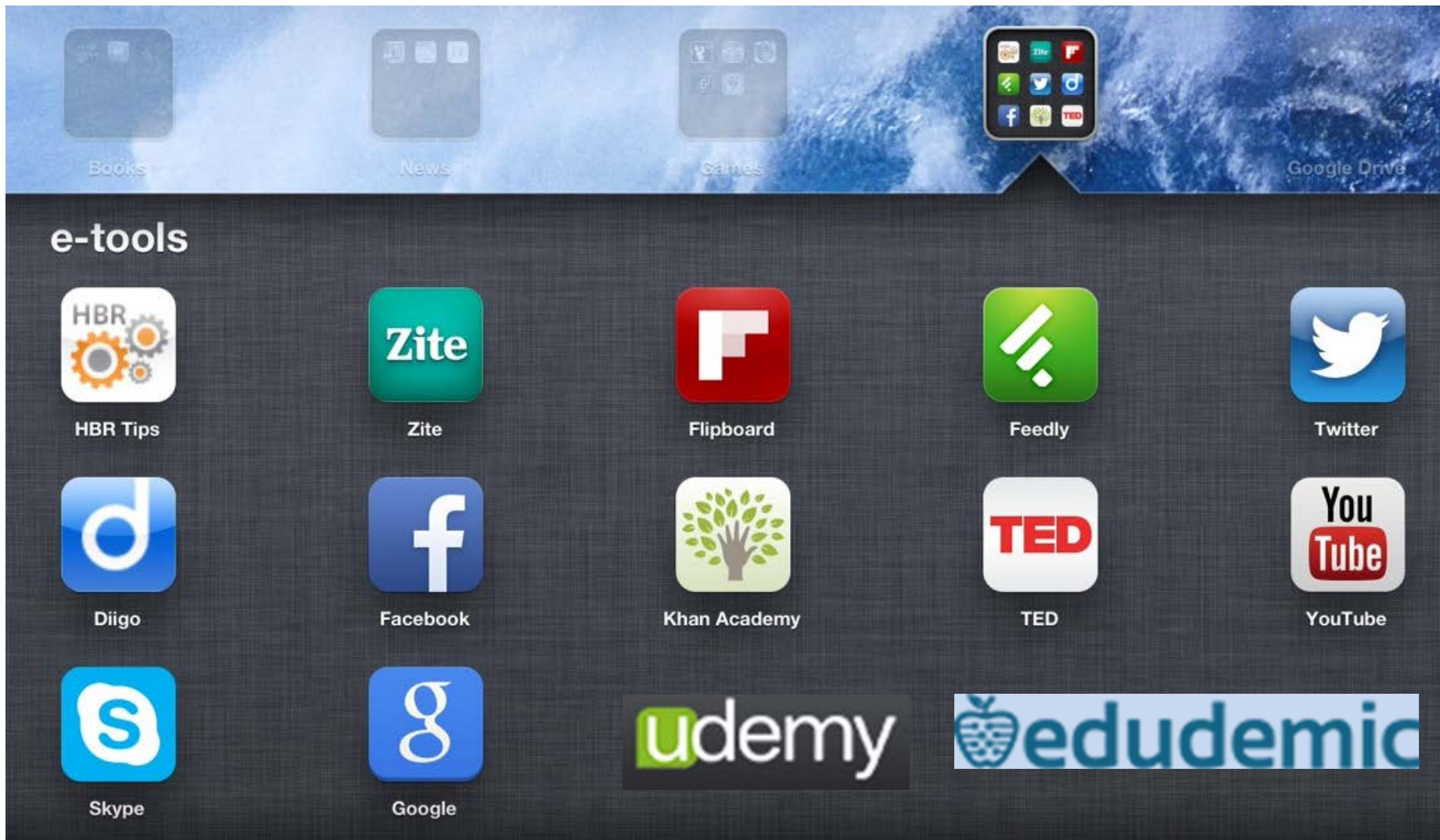
**Work for Us**

# WHERE YOU SIT IN CLASS/SEMINAR

And what it says about you:



TEACHING  
TECHNICAL  
TEACHING



<http://www.unsiap.or.jp/StatOS/index.php>

# e-Learning in this Workshop

- Online
  - Fully structured online courses
    - With or without 'live' instructors (synchronous/asynchronous)
    - With or without granting of certificates of completion
  - Fully structured online courses leading to or contributing to a formal degree

# No longer a question of 'should we?'

News Feed Item

## IMF and edX Join Forces to Pilot Online Economics and Financial Courses

*Organizations collaborate to improve understanding of economic policy issues by governments and individuals around the world*

BY PR NEWswire

ARTICLE RATING: ★★☆☆☆

JUNE 19, 2013 12:01 AM EDT

READS: 280



WASHINGTON and CAMBRIDGE, Mass., June 19, 2013 /PRNewswire/ -- The International Monetary Fund (IMF) and edX, the not-for-profit online learning initiative composed of the leading global institutions of the xConsortium, announced

a collaboration today to strengthen economic expertise worldwide. The collaboration will extend the reach of the IMF's training courses in macroeconomics and finance to governments and the public through the edX platform. EdX's open learning platform is used by universities worldwide to develop innovative online, on-campus, and blended teaching and learning models, and was chosen for this first-of-its-kind initiative because of its cutting-edge online learning environment, educational expertise, and global reach. The collaboration marks the first time edX has been used as the educational platform of an international governmental organization.

Pilots of the first two online courses—*Financial Programming and Policies* and *Debt Sustainability Analysis*—will be rolled out to small groups of government officials in the coming months, with plans to open access to the general public during 2014. Through edX, the IMF will be able to provide interactive education free of charge wherever there is internet access.

### Comments

#### What CIOs Need to Know Today About SDN

By Marc Cohn

*Michael Bushong wrote: It's rare that you see these articles pointing out most or all of the emerging SDN trends - automation, DevOps, optical, WAN, Open. I do think that the discussion about Open and Closed probably needs a bit more precision. Open can mean a lot of things: Standards Interoperability Interchangeability Open Source Access I think the focus has been on Standards, but in an emerging space, Standards will lag. The real desire is to make things interoperable to enable heterogeneous environments and interchangeability to prevent lock-in. Mike*

# ONLINE Learning

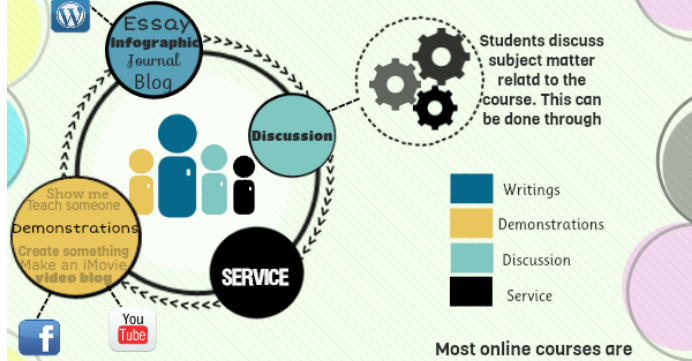
What do you need to know about taking your course online

## CONTENT

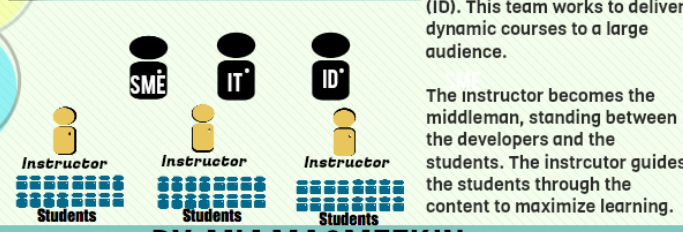
What do you include in the course?



## CONSTRUCTING KNOWLEDGE



## THE TEAM



BY: MIA MACMEEKIN

# Discussion of "How to do it?"

- Content
- Constructing knowledge
- The team: SME, IT, ID, Instructor







# *Instructional Design*

<http://onlinelearninginsights.wordpress.com/2013/05/28/start-here-instructional-design-models-for-online-courses/>

- ... process through which a trainer*
- determines the best teaching methods*
  - for specific learners*
  - in a specific context*
  - attempting to obtain a specific goal*



# Instructional Design

- Learning approach
- Choice of instructional media
- Clustering and sequencing of learning
- Range of exercises, activities, and assessments included in the course



Knowledge is not passively received either through the senses or by way of some other means. Knowledge is actively built up by the cognising subject;  
2a. The function of cognition is adaptive, in the biological sense of the term, tending towards fit or viability;  
2b. Cognition serves the subject's organization of the experiential world, not the discovery of an objective ontological reality.

The learner is not a passive recipient of knowledge but that knowledge is 'constructed' by the learner.

groups construct knowledge for one another, collaboratively creating a small culture of shared artifacts with shared meanings

knowledge is distributed across a network of connections to people and information - learning consists of the ability to construct and traverse those networks

A human being develops cognitively from birth throughout his or her life through four primary stages of development: sensorimotor (0-2), preoperational (2-7), concrete operational (7-11), and formal operational (11-). Assimilation is incorporation of new experiences into existing mental schema, accommodation changes mental schema.

The area of capabilities that learners can exhibit with support from a teacher or peer.

The learning of new forms of activity as they are created, rather than the mastery of putative stable, well-defined, existing knowledge and skill.

Scaffolding is the support given during the learning process which is tailored to the needs of the student with the intention of helping the student achieve his/her learning goals.

Learners obtain knowledge by forming and testing hypotheses.

New knowledge to acquire is related with previous knowledges.

We have several different ways of learning and processing information, but these methods are relatively independent of one another: leading to multiple "intelligences" as opposed to a general intelligence factor among correlated abilities

In Mastery learning, "the students are helped to master each learning unit before proceeding to a more advanced learning task".

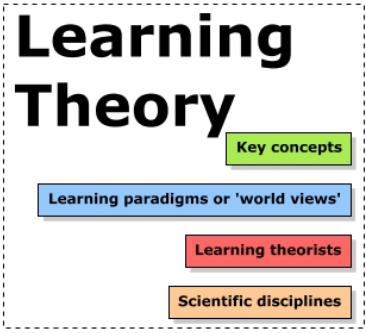
Taxonomy of learning objectives that educators set for students in three "domains": Cognitive, Affective, and Psychomotor. Learning at the higher levels is dependent on achieving lower levels. Designed to motivate educators to focus on all three domains, creating a more holistic form of education.

Learning as a process of forming associations between stimuli in the environment and the corresponding responses of the individual. Reinforcement strengthens responses and increases the likelihood of another occurrence when the stimulus is present again.

Learning Theory v6 is a hypertextual concept map of established learning theories 30th April 2013.

This is necessarily a reduction of a complete picture of learning theories, but nevertheless it attempts to map and link key scientific disciplines, theorists, concepts and paradigms.

Part of deliverable D2.2.1 for the HoTEL EU project designed by Richard Millwood richard.millwood@brunel.ac.uk



**Principles:**  
1. Mixed age classrooms, with classrooms for children aged 2½ or 3 to 6 years old;  
2. Student choice of activity from within a prescribed range of options;  
3. Uninterrupted blocks of work time;  
4. A Constructivist or "discovery" model, where students learn concepts from working with materials, rather than by direct instruction.

Education based on science that modified and improved the individual.

The process that occurs between a teacher and student that infuses direct experience with the learning environment and content.

Teacher types: lion-tamer, entertainer and new romantic - the problem of self-judgement in assessment.

An educational movement, guided by passion and principle, to help students develop consciousness of freedom, recognize authoritarian tendencies, and connect knowledge to power and the ability to take constructive action.

Learn naturally if given the freedom to follow own interests and a rich assortment of resources.

School is damaging to education: "The pupil is thereby 'schooled' to confuse teaching with learning, grade advancement with education, a diploma with competence, and fluency with the ability to say something new."

Optimal learning demands that students receive instruction tailored to their learning styles.

Knowledge is continuously gained through both personal and environmental experiences. The learner must:  
1. be able to reflect on the experience;  
2. use analytical skills to conceptualize the experience; and  
3. make decisions and solve problems to use the ideas gained from the experience.

Modifying the goal of learning activity in the light of experience or possibly even reject the goal. Single-loop learning is the repeated attempt at the same problem, with no variation of method and without ever questioning the goal.

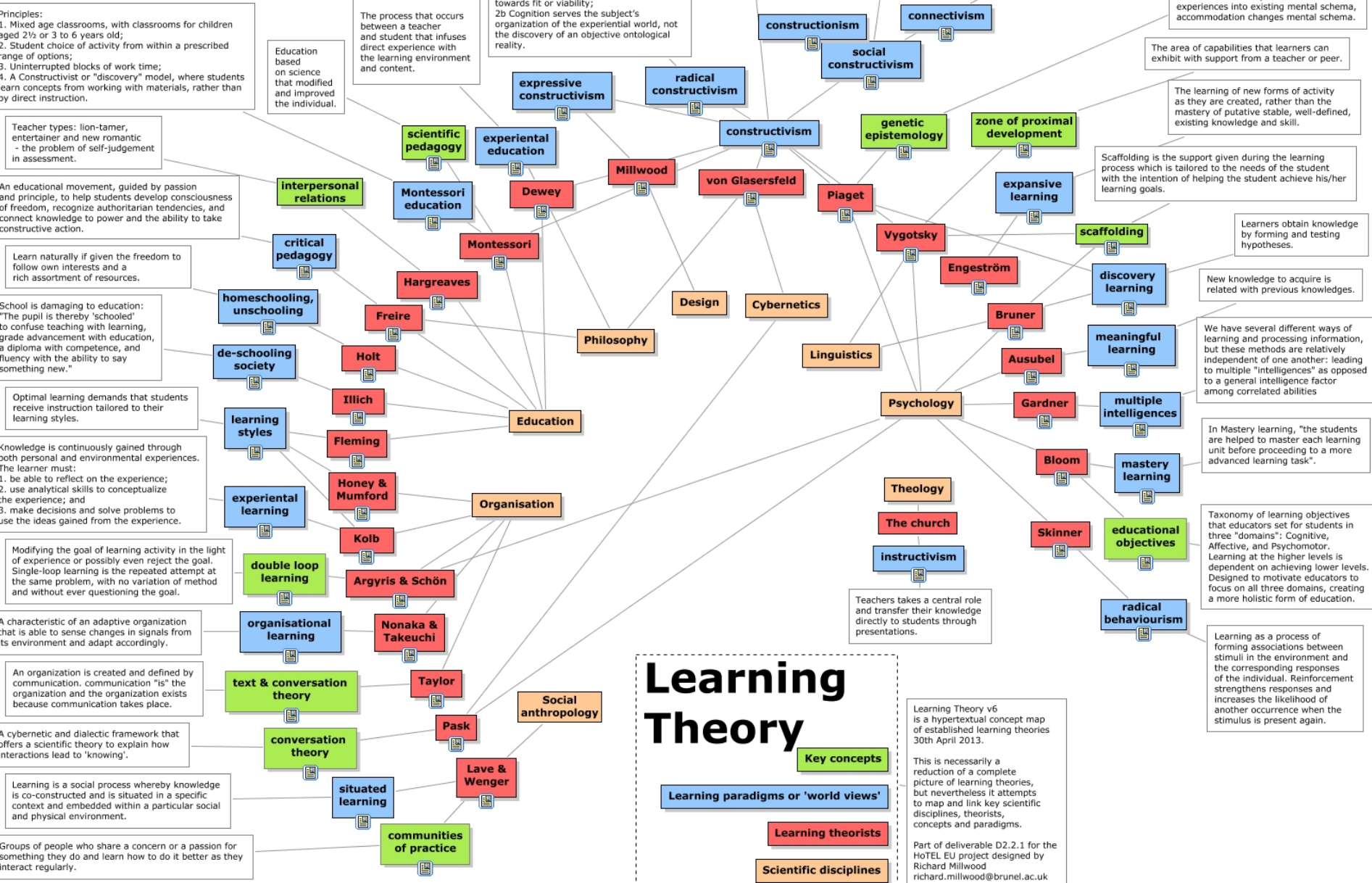
A characteristic of an adaptive organization that is able to sense changes in signals from its environment and adapt accordingly.

An organization is created and defined by communication, communication "is" the organization and the organization exists because communication takes place.

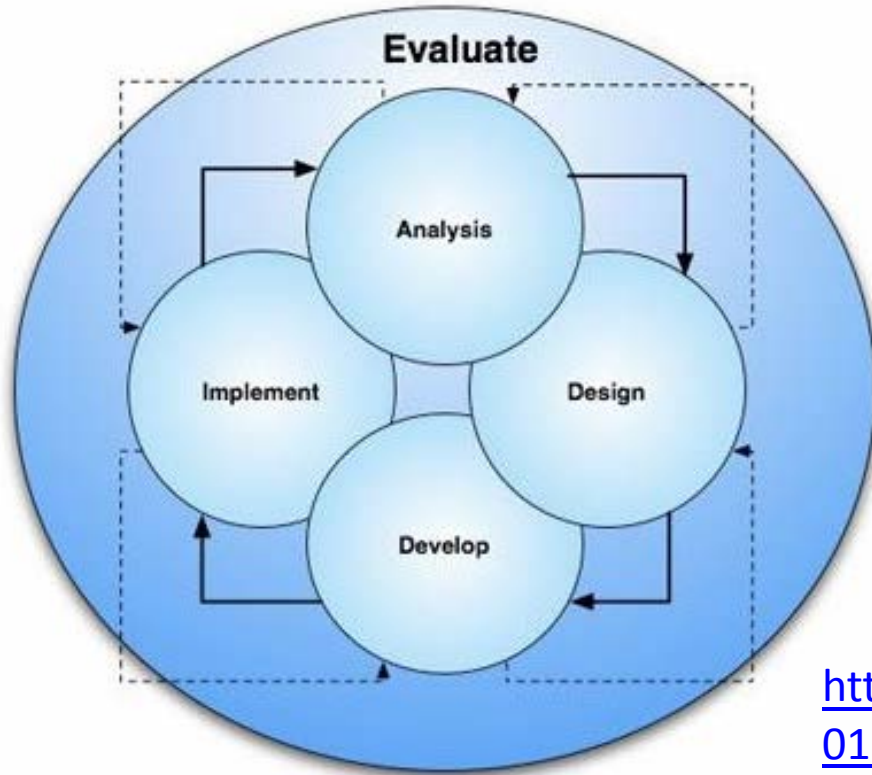
A cybernetic and dialectic framework that offers a scientific theory to explain how interactions lead to 'knowing'.

Learning is a social process whereby knowledge is co-constructed and is situated in a specific context and embedded within a particular social and physical environment.

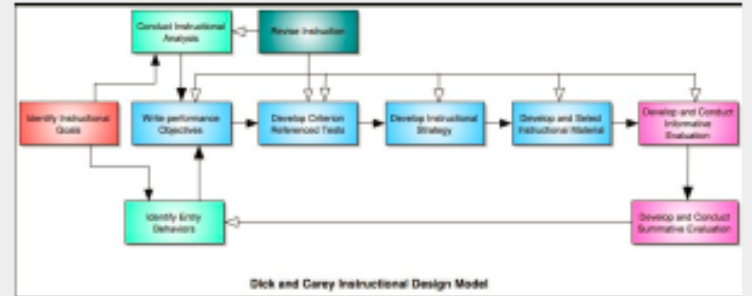
Groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly.



# Instructional Design Models ...



The ADDIE model: Analyze, Design, Development, Implement, Evaluate



— Dick, Carey and Carey Instructional Design Model

<http://onlinelearninginsights.wordpress.com/2013/05/28/start-here-instructional-design-models-for-online-courses/>

# Engage, Explore, Explain, Elaborate, Evaluate



## *Constructivism*

Constructivism is a learning strategy that draws on students' existing knowledge, beliefs, and skills. With a constructivist approach, students synthesize new understanding from prior learning and new information.

The constructivist teacher sets up problems and monitors student exploration, guides student inquiry, and promotes new patterns of thinking. Working mostly with raw data, primary sources, and interactive material, constructivist teaching asks students to work with their own data and learn to direct their own explorations. Ultimately, students begin to think of learning as accumulated, evolving knowledge. Constructivist approaches work well with learners of all ages, including adults.

<http://enhancinged.wgbh.org/research/eeeeee.html>

# Instructional Media

- Video



- Graphics



- Audio



- Animation

- Simulation



# Online Course Materials

- Instructional design + content

**"Quality is doing the right thing when no one is looking." - Henry Ford**

# Online Course Materials

- Instructional design + content
- Materials development requires a range of skills
  - Subject matter experts
  - Instructional designers
  - Curriculum specialists
  - Technology specialists
  - Assessment specialists
  - Language editor





# EVENTS IN INSTRUCTION

"Instruction is a set of events external to the learner designed to support the internal processes of learning" (Gagne, Wager, Golas & Keller, 2005).

An Events in Instruction Series

## 1 GAINING STUDENTS' ATTENTION

How do you gain your students' attention?

## 2 HERE ARE THE OBJECTIVES

How do you inform the learner of the objectives?

## 3 PRIOR KNOWLEDGE

How do you determine the students' prior knowledge?

## 4 PRESENTING stimulating MATERIAL

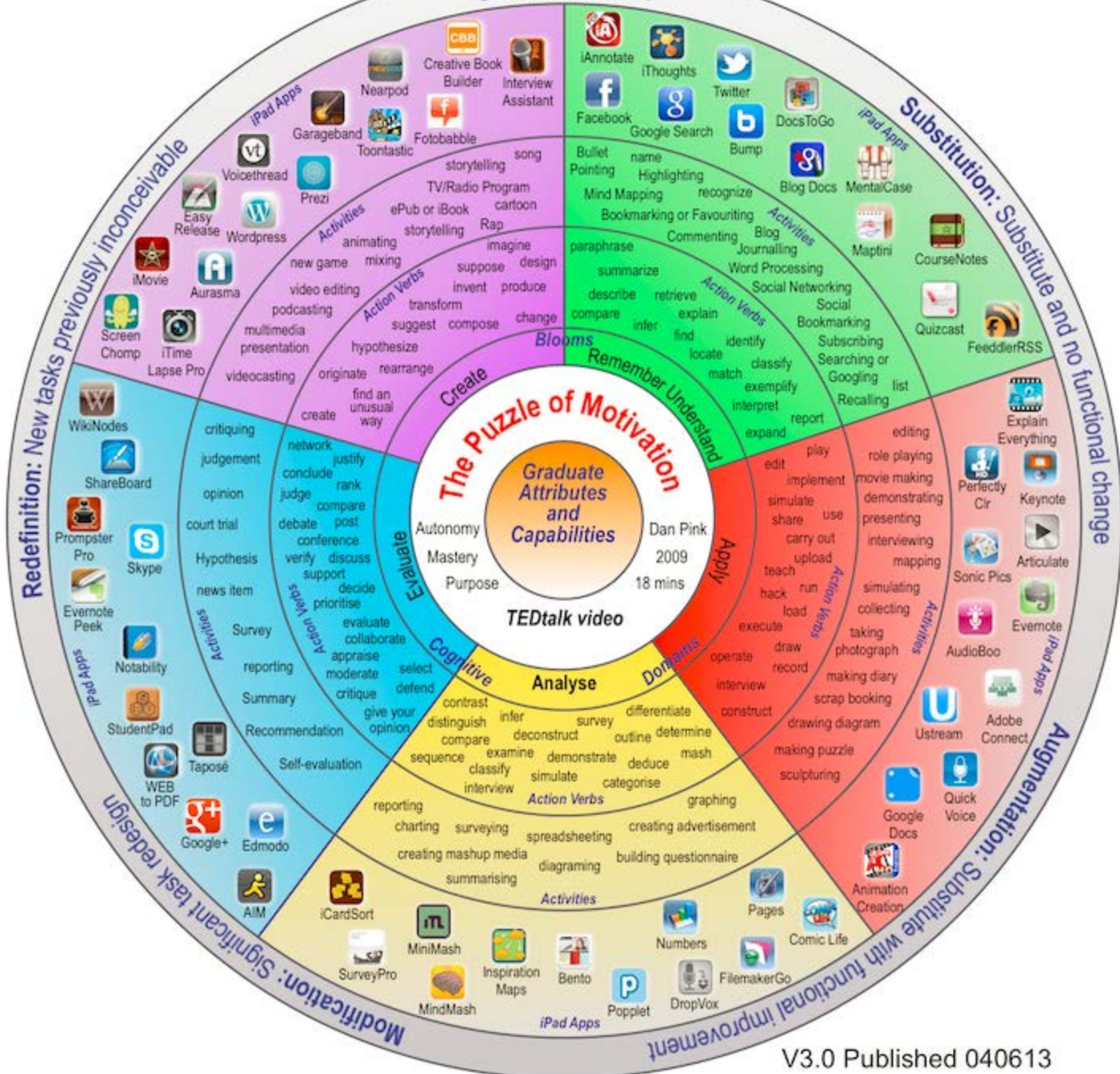
How do you present the material for maximum retention?

## 5 GUIDING and facilitating LEARNING

How do you facilitate your students to connect the dots?

<http://www.edudemic.com/2013/06/a-step-by-step-visual-guide-to-being-an-effective-instructor/>

# SAMR Model



**6**  
**TIME TO Perform**  
*How do you draw out student performance?*

**7**  
**FEEDBACK**  
*Please*  
*How do you give feedback?*

**8**  
**ASSESSMENT**  
*Time*  
*How do you assess understanding?*

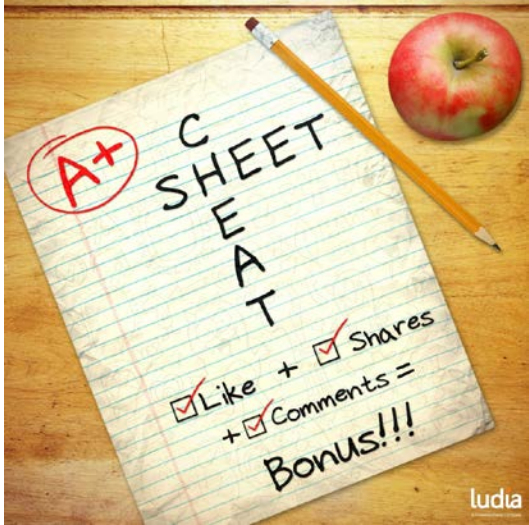
**9**  
**ENHANCING RETENTION**  
*How do you enhance retention and retrieval?*

Researchers believe there are 9 events in learning. This is an overview of the events series. Each of the following infographics will contain 27 easy tips of how to achieve each of the events in your classroom.

Reference  
 Gagne, R. M., Wager, W. W., Golas, K. C., & Keller, J. M. (2005). Principles of instructional design. (5 ed., p. 195). Belmont: Wadsworth Cengage Learning.

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[anethicalisland.wordpress.com](http://anethicalisland.wordpress.com) By: Mia MacMeekin



ludia



# 10 eLearning commandments

Thou shalt...

1. Start with good beginnings.
2. Love thy learner as thyself.
3. Respect your audience.
4. Keep it conversational.
5. Avoid eye candy.
6. Show, not tell.
7. Not abuse interactivity.
8. Use small learning units.
9. Not steal control from the learner
10. Focus on activity, not screens

## Elements of Quality e-Learning

"Quality is doing the right thing when no one is looking." - Henry Ford

"Quality is free. The 'unquality' things are what cost money." - P. B. Crosby

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<http://ecbcheck.efquel.org/>

<http://info.shiftelearning.com/blog/bid/297719/The-Ten-eLearning-Commandments-Infographic>

# Certification

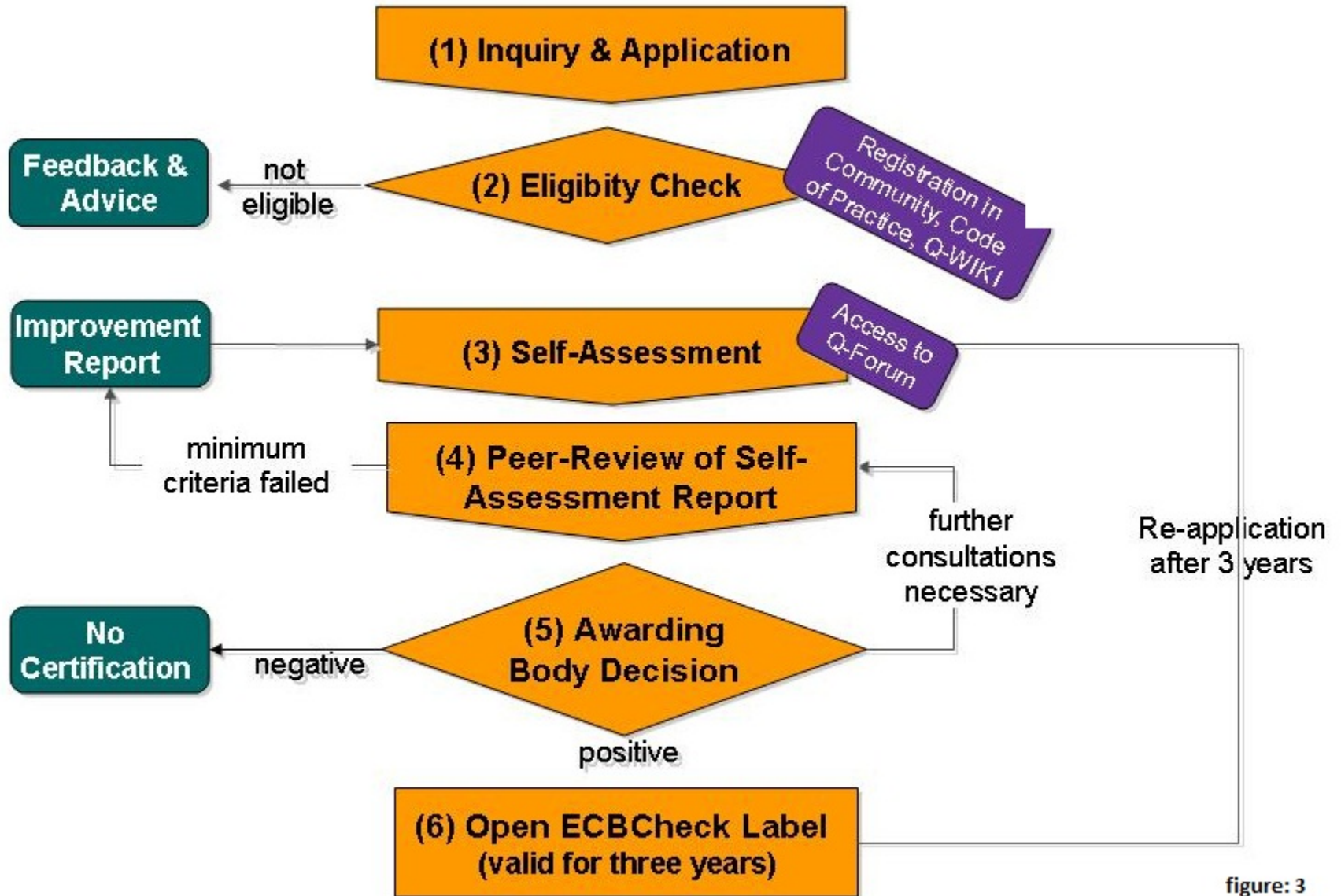
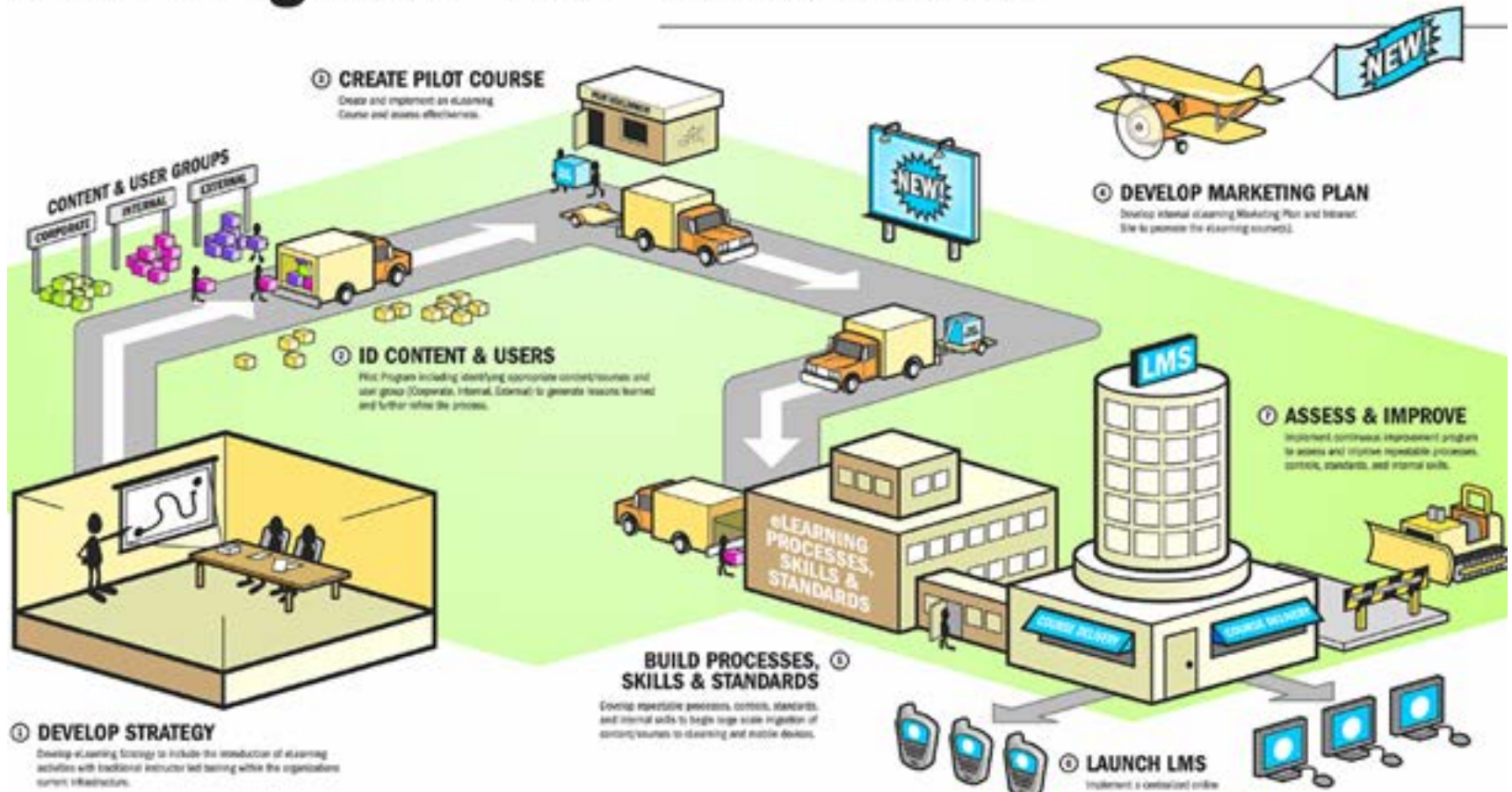


figure: 3

# eLearning ROADMAP

eLearning can be an additional learning strategy for an organization to achieve, accelerate, and improve business results. Given a geographically-dispersed organization as well as compliance and regulatory mandates, eLearning provides a cost-effective distribution system of knowledge and information. While various forms of eLearning are currently in use, it consists primarily of non-subsidized, off-the-shelf online training with no cohesive plan or strategy.

The development of an eLearning strategy is critical to the success of the program. This graphic illustrates the process of designing and developing a strategy to leverage existing infrastructure, custom content, and the industry's treatment and experiences with eLearning and mobile devices.



<http://www.cae.net/blog/implementing-elearning-training-into-an-enterprise/>



# CAN E-LEARNING BE USED TO DEVELOP ANY TYPE OF SKILL?

A training program may aim at developing different types of skills:

- > **cognitive skills**, which can involve knowledge and comprehension (e.g. understanding scientific concepts ), following instructions (procedural skills), as well as applying methods in new situations to solve problems (thinking or mental skills);
- > **interpersonal skills** (e.g. skills involved in active listening, presenting, negotiating, etc.); as well as
- > **psychomotor skills**, involving the acquisition of physical perceptions and movements (e.g. making sports or driving a car).

**How can e-learning address these diverse domains?**

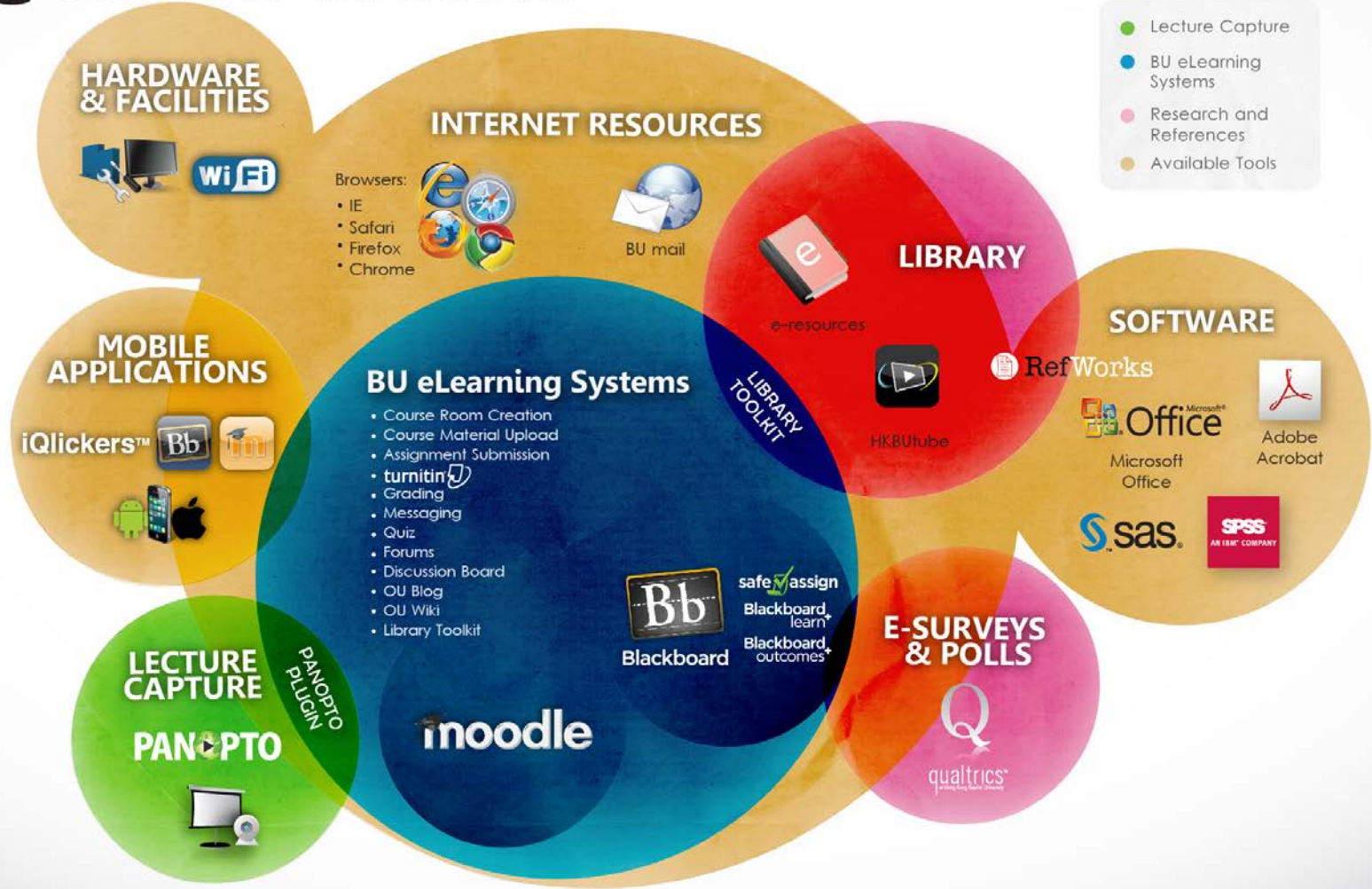
Most e-learning courses are developed to build cognitive skills; the cognitive domain is the most suitable for e-learning. Within the cognitive domain, thinking skills may require more interactive e-learning activities because those skills are learned better “by doing”.

Learning in the interpersonal domain can also be addressed in e-learning by using specific methods. For example, interactive role playing with appropriate feedback can be used to change attitudes and behaviours.

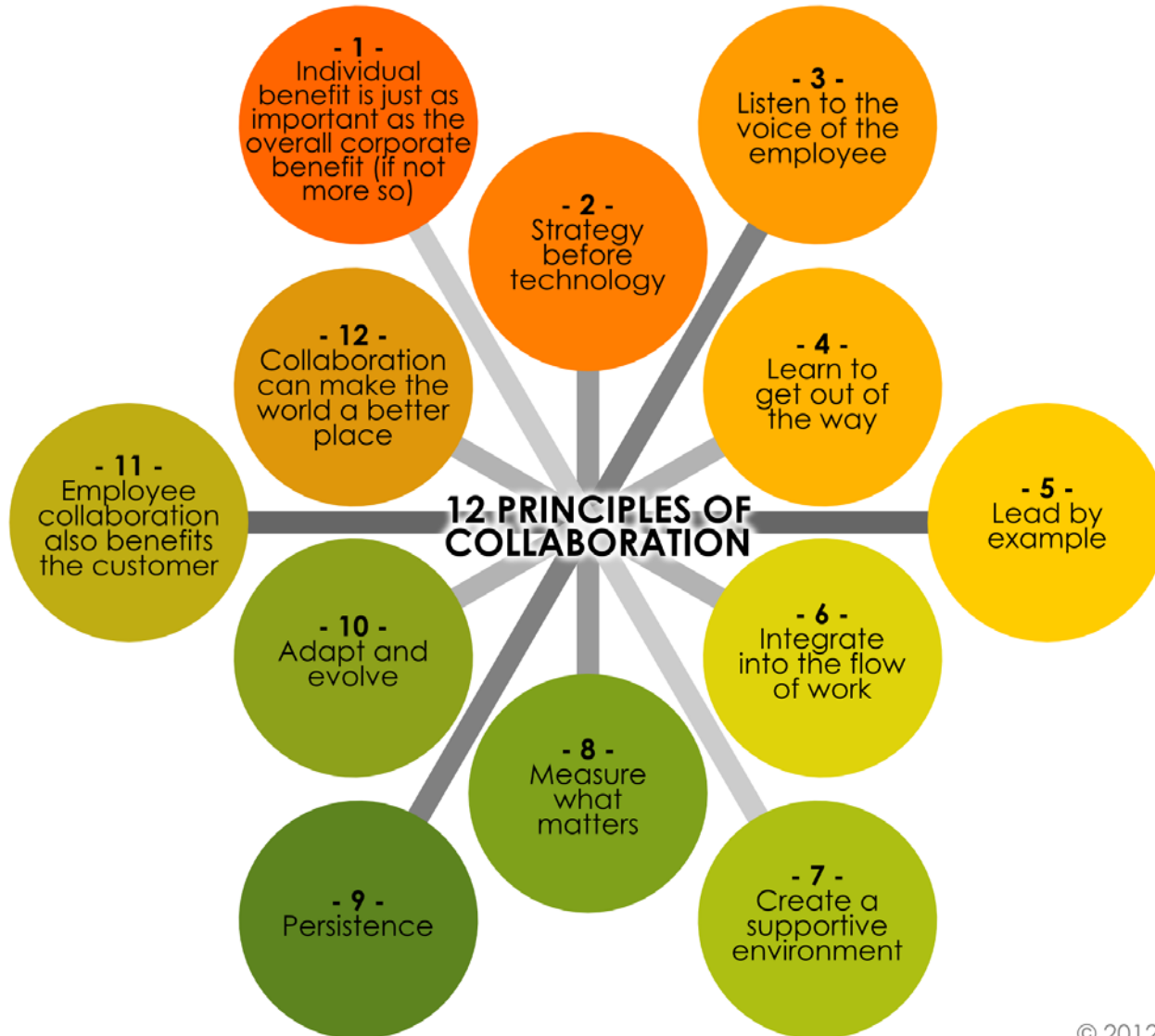
# eLearning ecosystem @HKBU

eLearning@HKBU is jointly supported by the Centre of Holistic Teaching and Learning (CHTL), the Information Technology Office (ITO), and the Library (LIB).

- Lecture Capture
- BU eLearning Systems
- Research and References
- Available Tools



# Why do it collaboratively? And how?



## The Year of the MOOC



Clockwise, from top left: an online course in circuits and electronics with an M.I.T. professor (edX); statistics, Stanford (Udacity); machine learning, Stanford (Coursera); organic chemistry, University of Illinois, Urbana (Coursera).

By LAURA PAPPANO

Published: November 2, 2012

[http://www.youtube.com/results?search\\_query=moc&og=mooc&gs\\_l=youtube.3..0|10.15547.16413.0.17180.4.4.0.0.0.107.342.3|1.4.0...0.0...1ac.1.11.youtube.h22kAkyRKcQ](http://www.youtube.com/results?search_query=moc&og=mooc&gs_l=youtube.3..0|10.15547.16413.0.17180.4.4.0.0.0.107.342.3|1.4.0...0.0...1ac.1.11.youtube.h22kAkyRKcQ)

The year of a sTaTs.MOOC?





Source: evollution.com



UDACITY



coursera



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### MEET NEW FRIENDS

Use the latest in peer-to-peer social learning tools and connect



## **P A I N** STORMING before BRAINSTORMING

**P**erson

Who are we innovating for?

**A**ctivities

What do they do, why and to what ends in their everyday lives?

**I**nsights

What are the processes, tools or activities they unnecessarily do or that they invented themselves to 'work around' the way things are supposed to be done?

**N**eeds

What are activity/job specific pain points?



