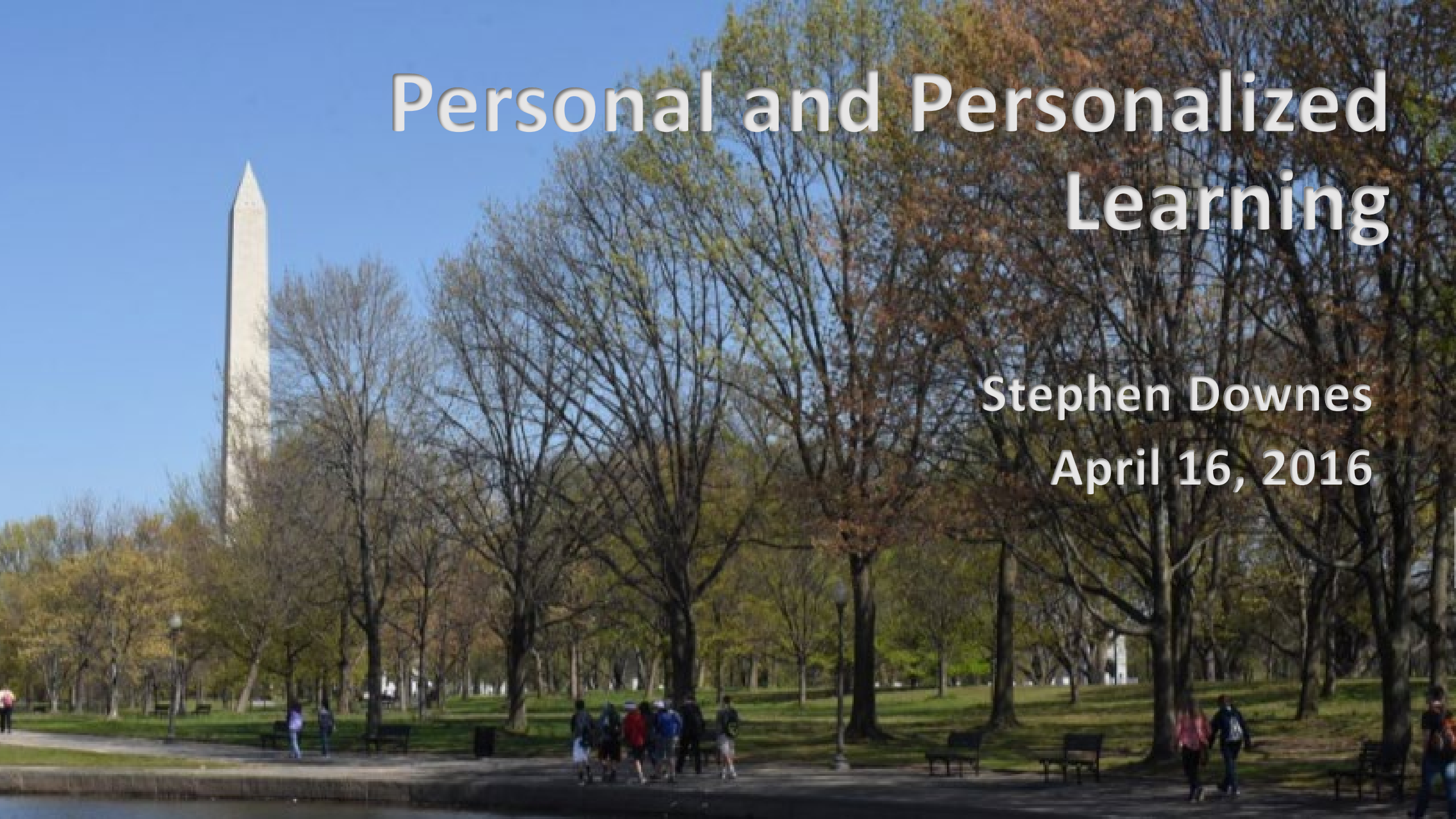


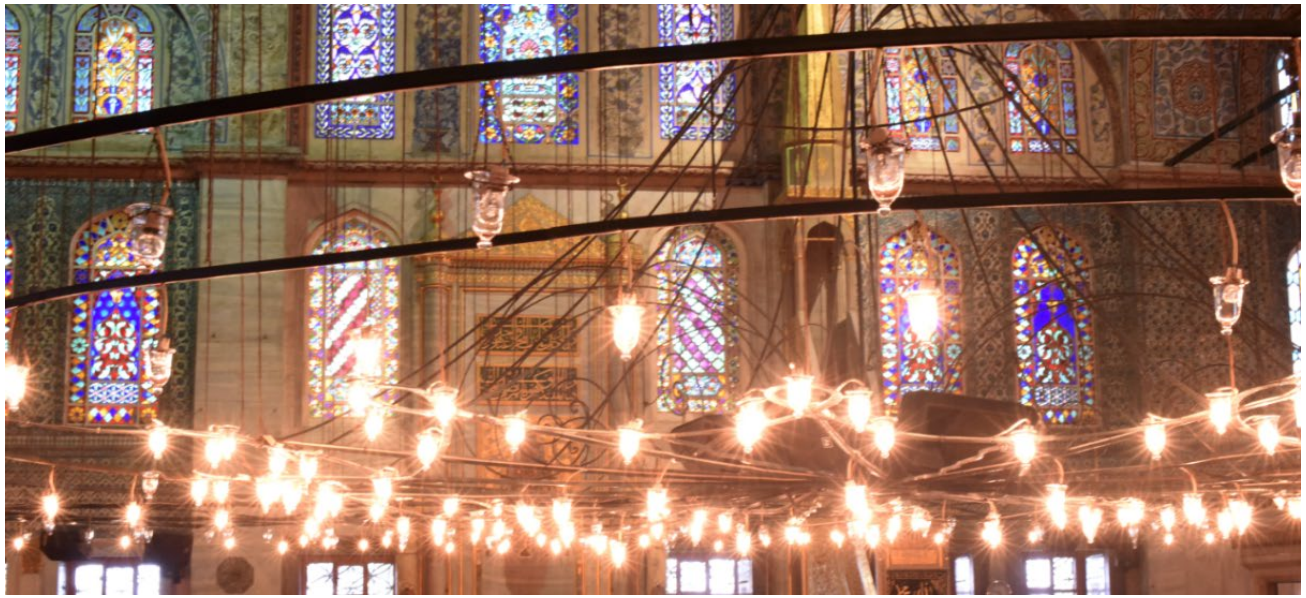
Personal and Personalized Learning

Stephen Downes

April 16, 2016

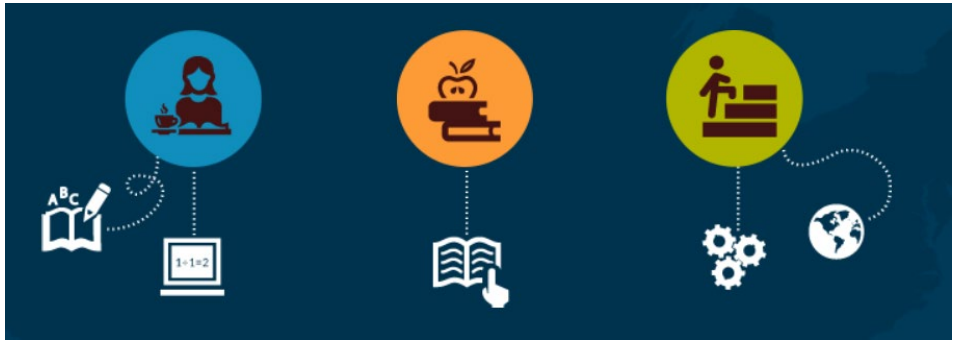
The Inflexible Law of Learning

It's when we do stuff that we learn, not when stuff does something for us.



1. Learning is Personal

Standardized Learning



The Standards' refers to all elements of the design – the wording of domain headings, cluster headings, and individual statements… The pieces are designed to fit together, and the standards document fits them together…

Publishers' Criteria for the Common Core State Standards for Mathematics (July 2012)
https://ldc.org/sites/default/files/mctighe_wiggins_final_common_core_standards_0.pdf

Knowledge Translation

"…defined as a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically-sound application of knowledge ...."

CIHR, http://www.cihr-irsc.gc.ca/e/39033.html

Campbell Collaboration - knowledge base for decisions

http://www.campbellcollaboration.org

Reasonable Doubts

The crisis can't be wished away, nor can the basic lack of reproducibility be whitewashed.

http://www.downes.ca/post/65131

http://fivethirtyeight.com/features/science-isnt-broken/#part2

Criticisms…

- "research should move beyond a narrow focus on the 'know–do gap' to cover a richer agenda…"
  - **situation-specific** practical wisdom (phronesis)
  - **tacit** knowledge shared among practitioners ('mindlines')
  - **complex** links between power and knowledge; and
  - macro-level knowledge **partnerships**

Greenhalgh and Weiringa, http://jrs.sagepub.com/content/104/12/501.full

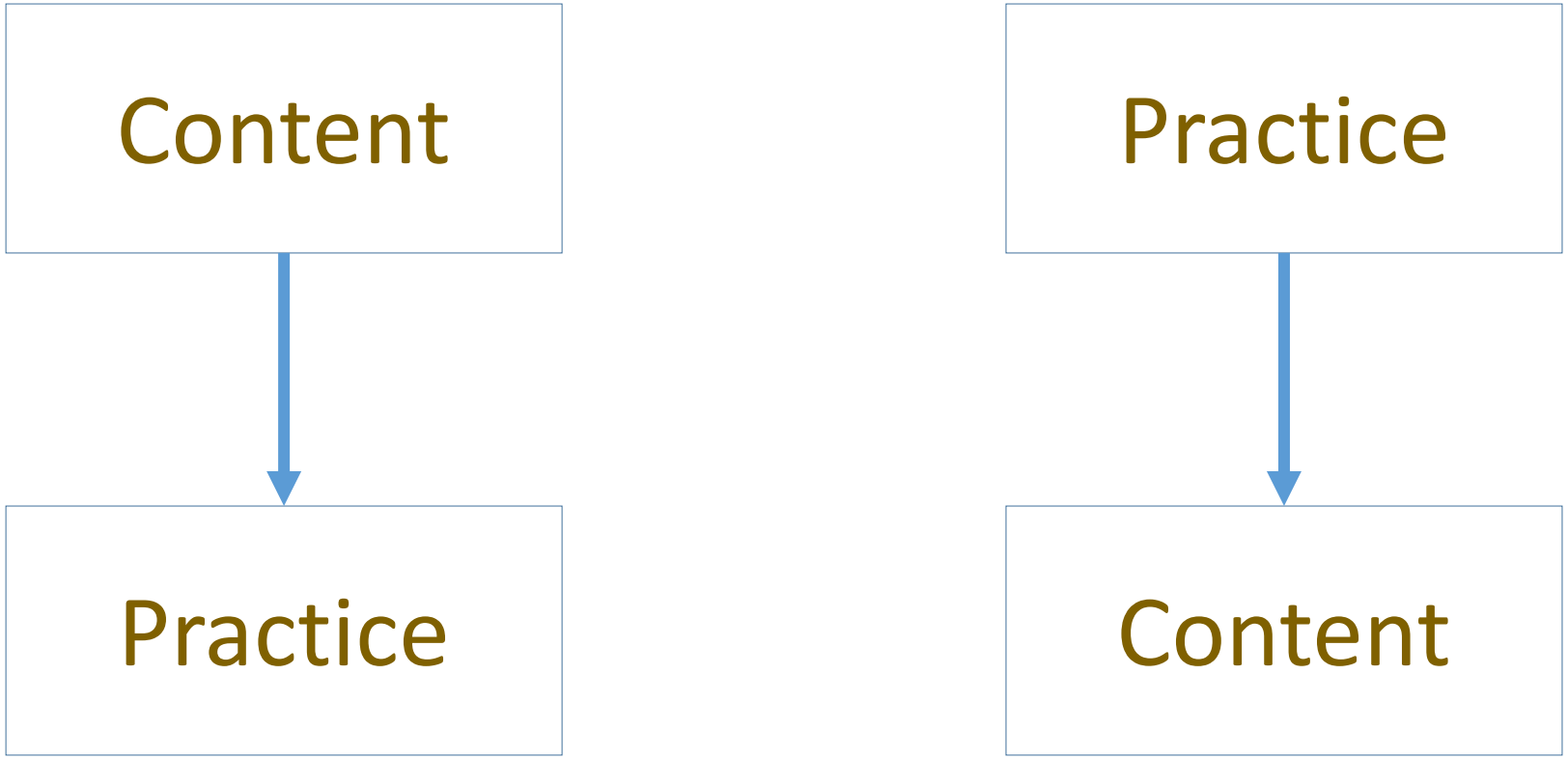
Personalization?

What is a personalized 21st century education

- personalized education plan (developed by teacher)
- adaptive learning via assessment
- grouping by proficiency, not age
- teacher = director of learning
- cf Kettering Foundation, Individually Guided Education

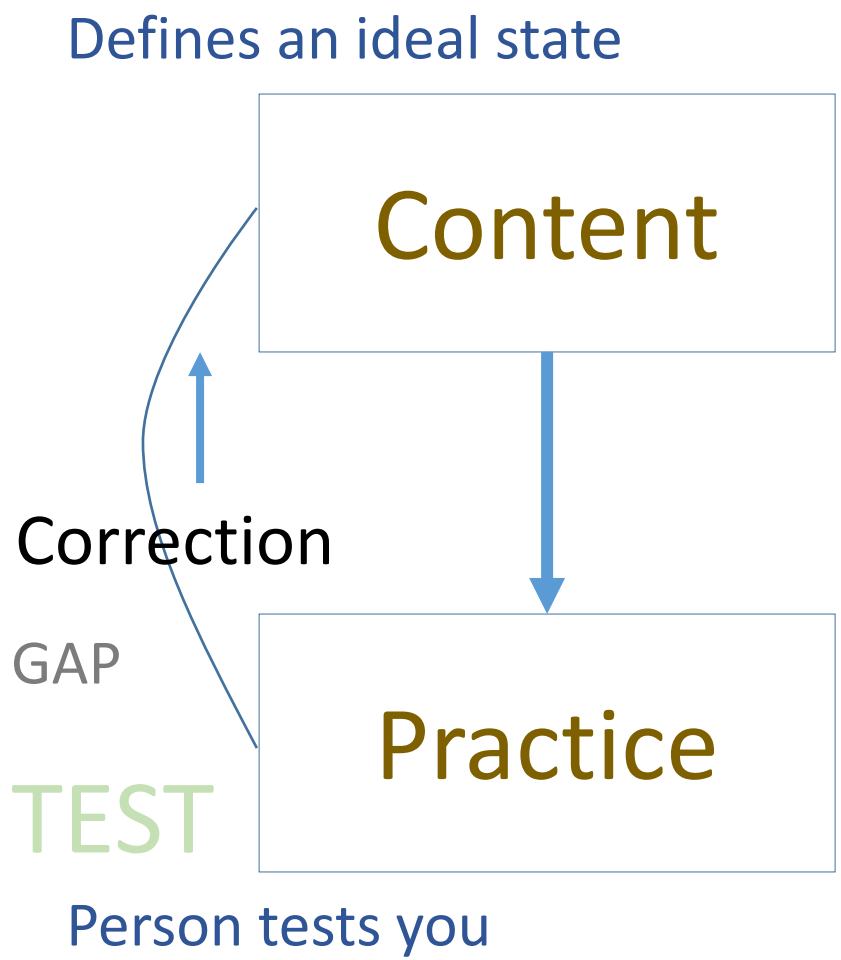
Personalizing 21st Century Education: A Framework for Student Success
Dan Domenech, Morton Sherman, John L. Brown
Jossey-Bass, a Wiley Brand. 2016

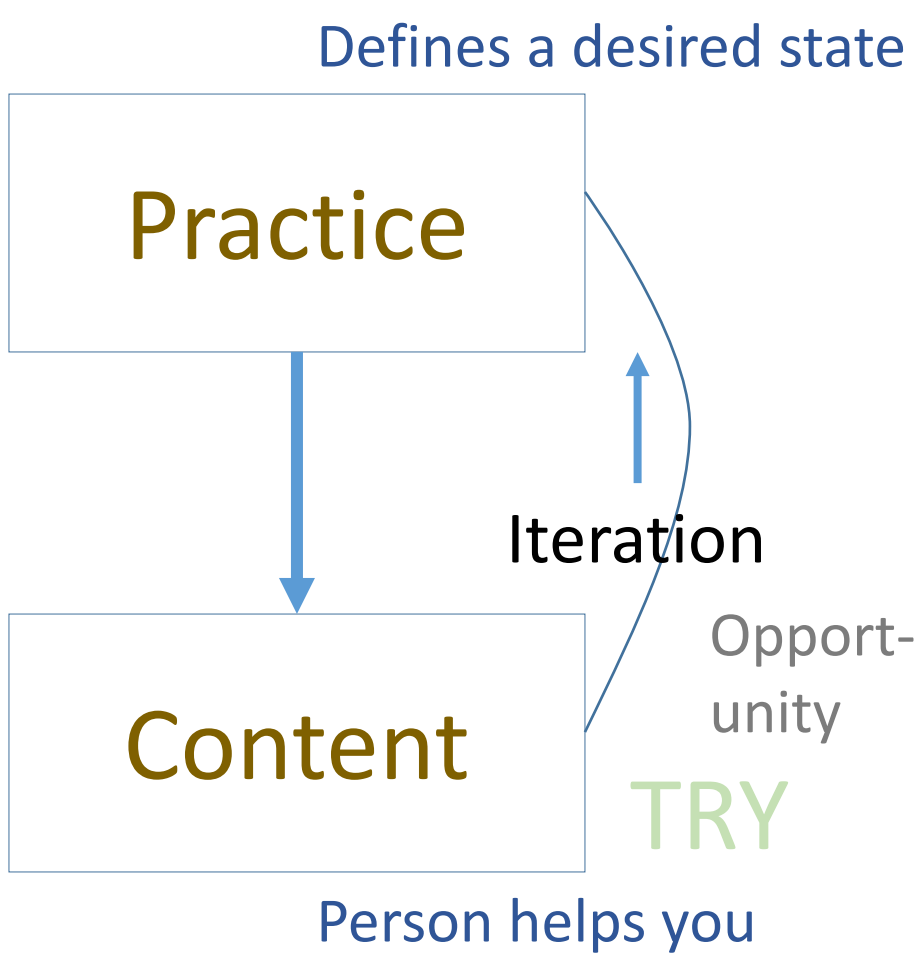
2. Two Approaches…



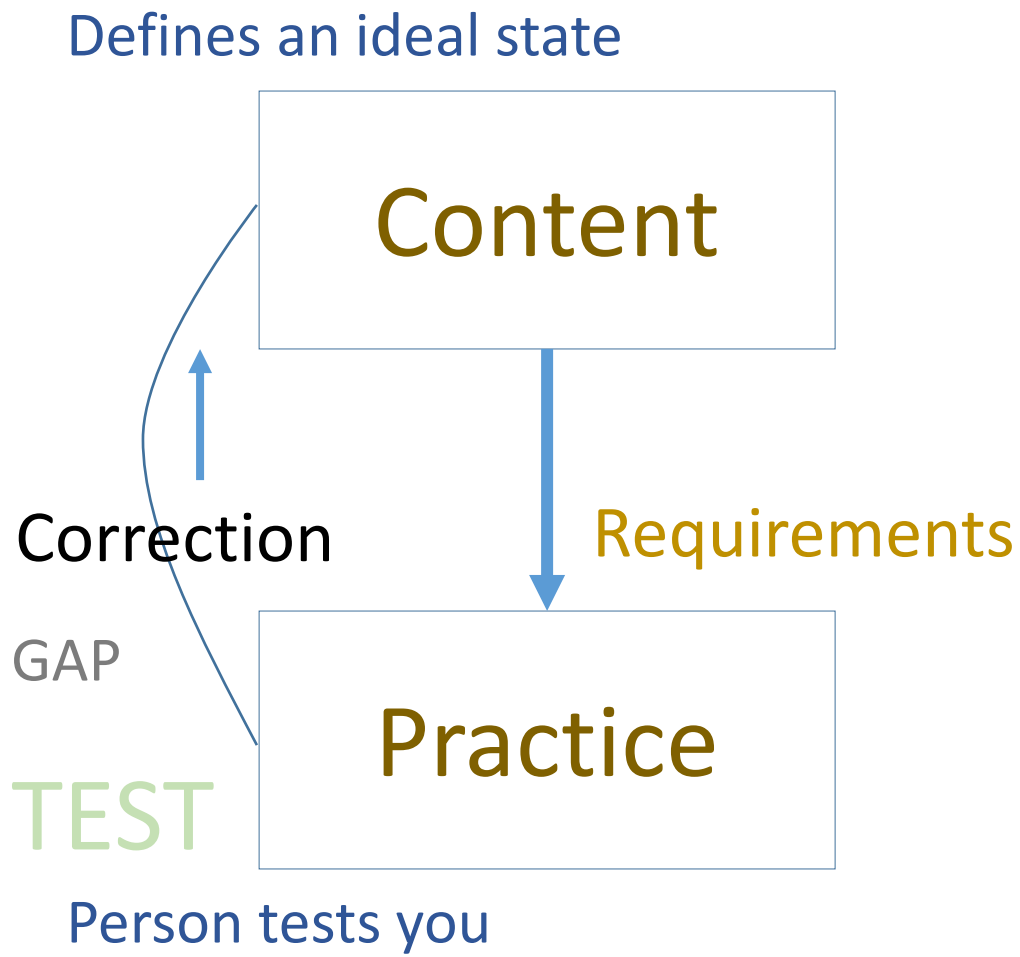
Two Approaches…

Two Approaches…

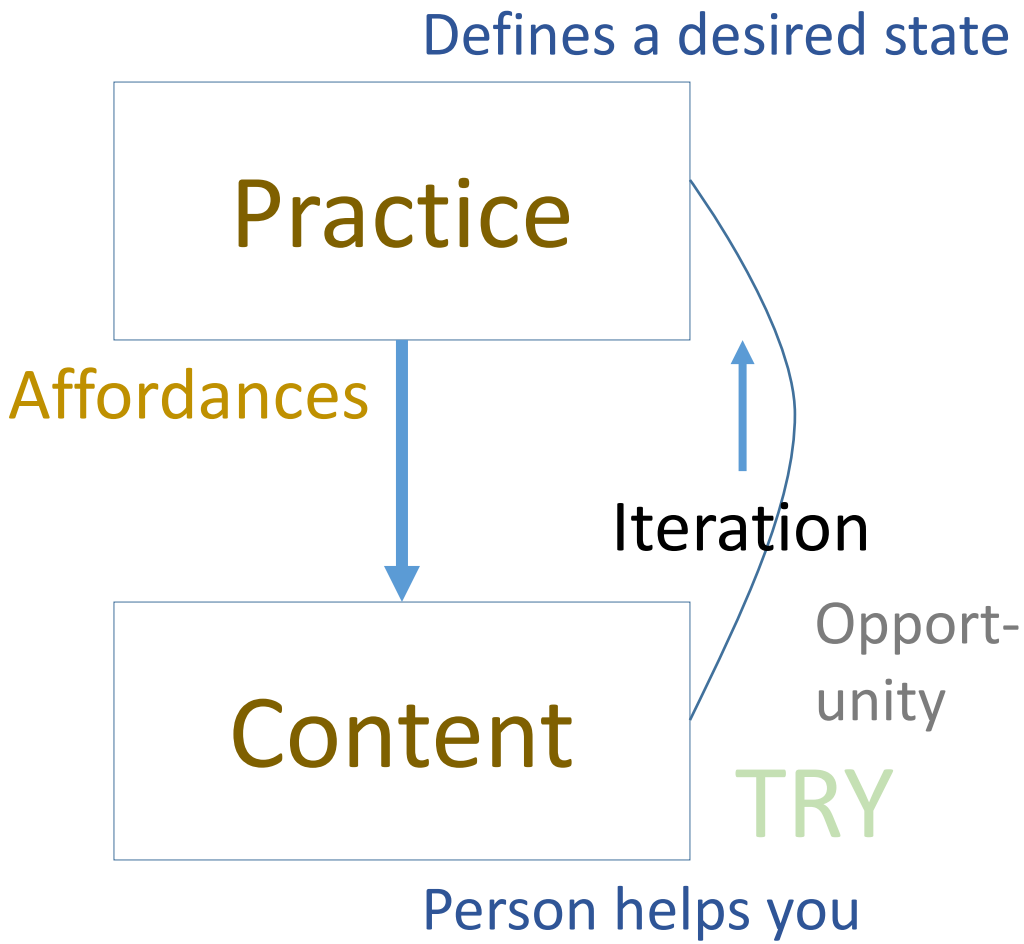




Library

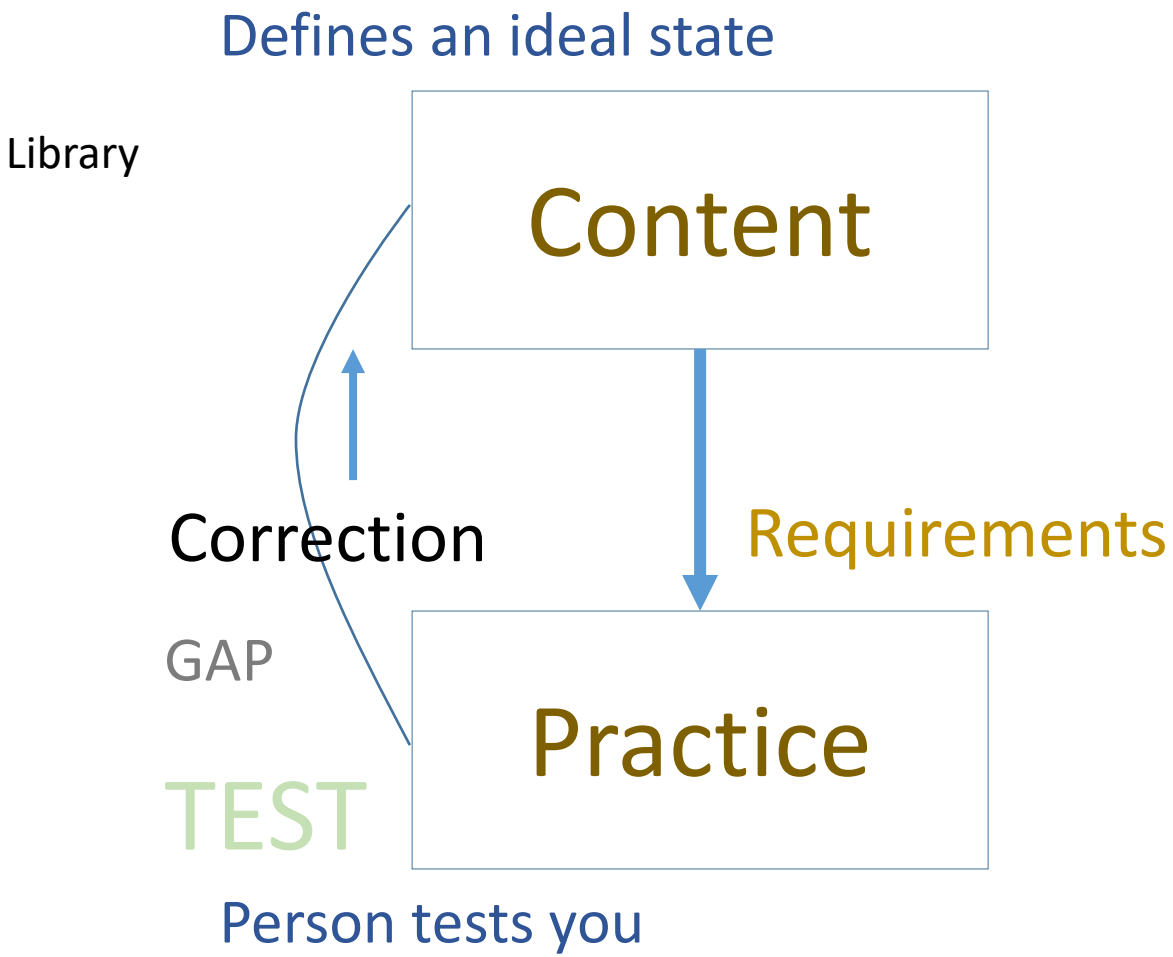


Environment



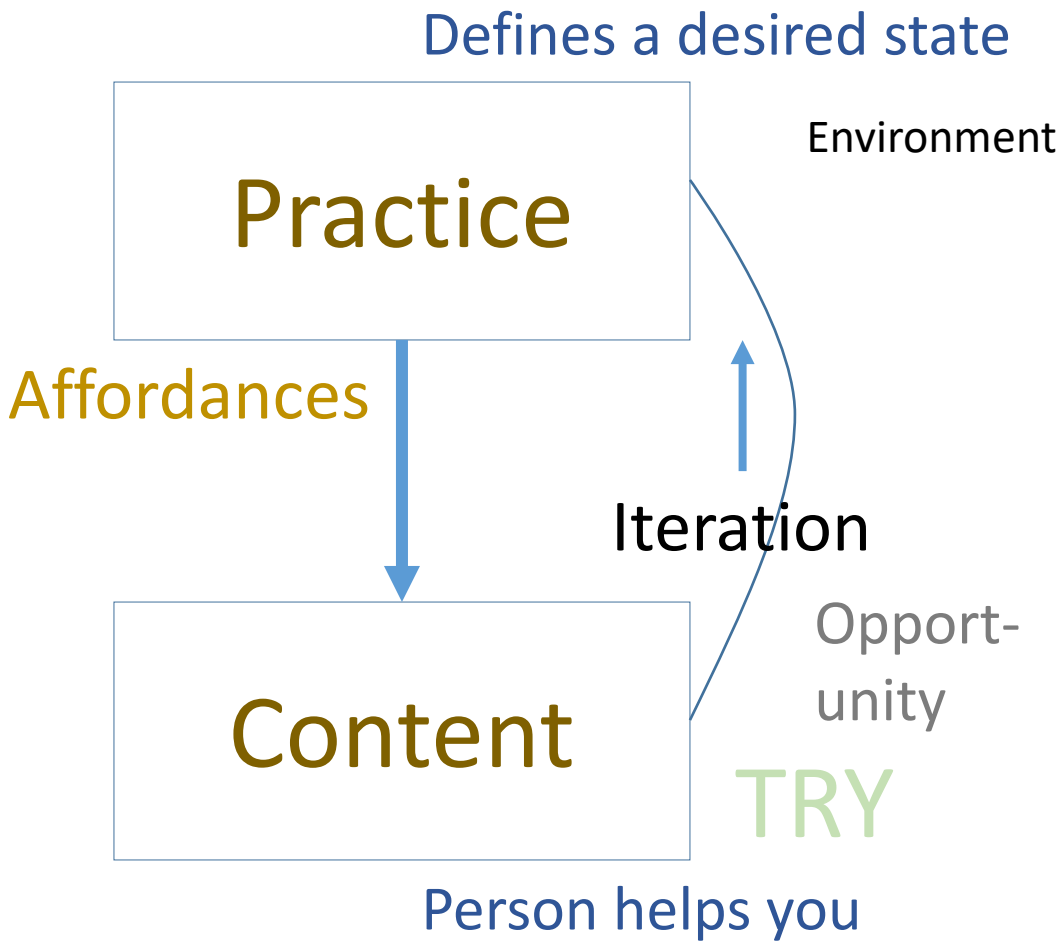
Personalized

We do for you



Personal

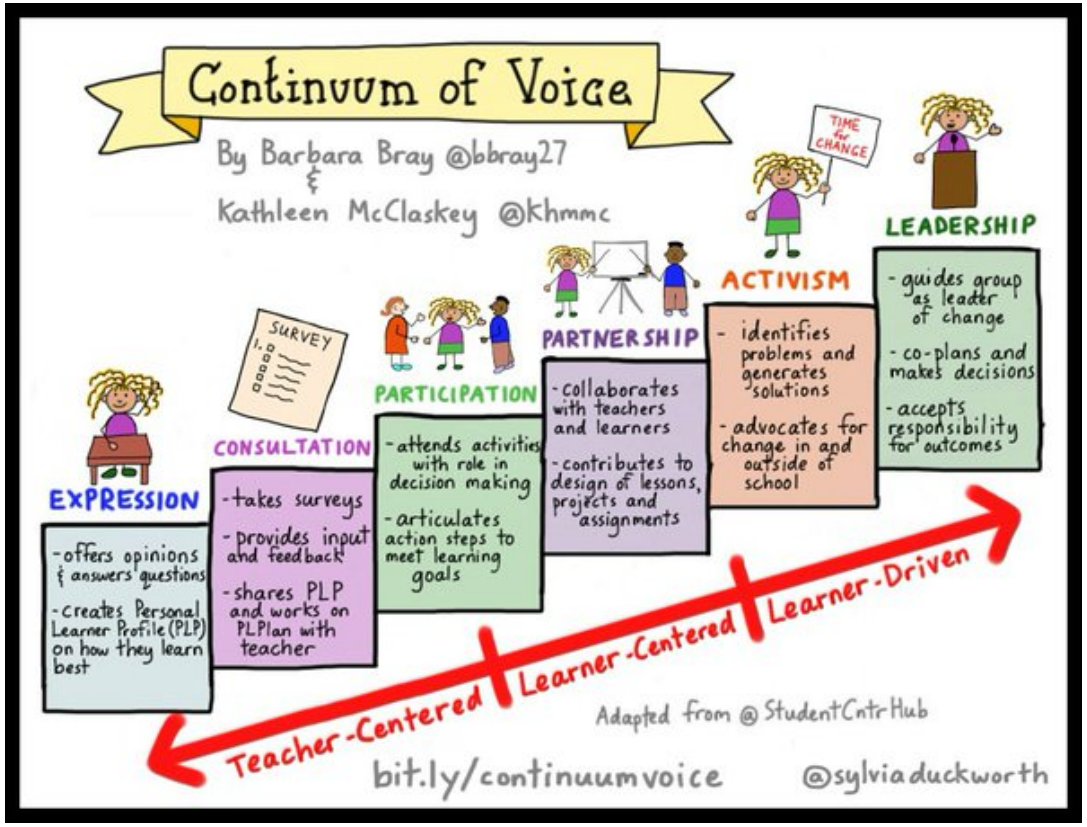
You do for yourself

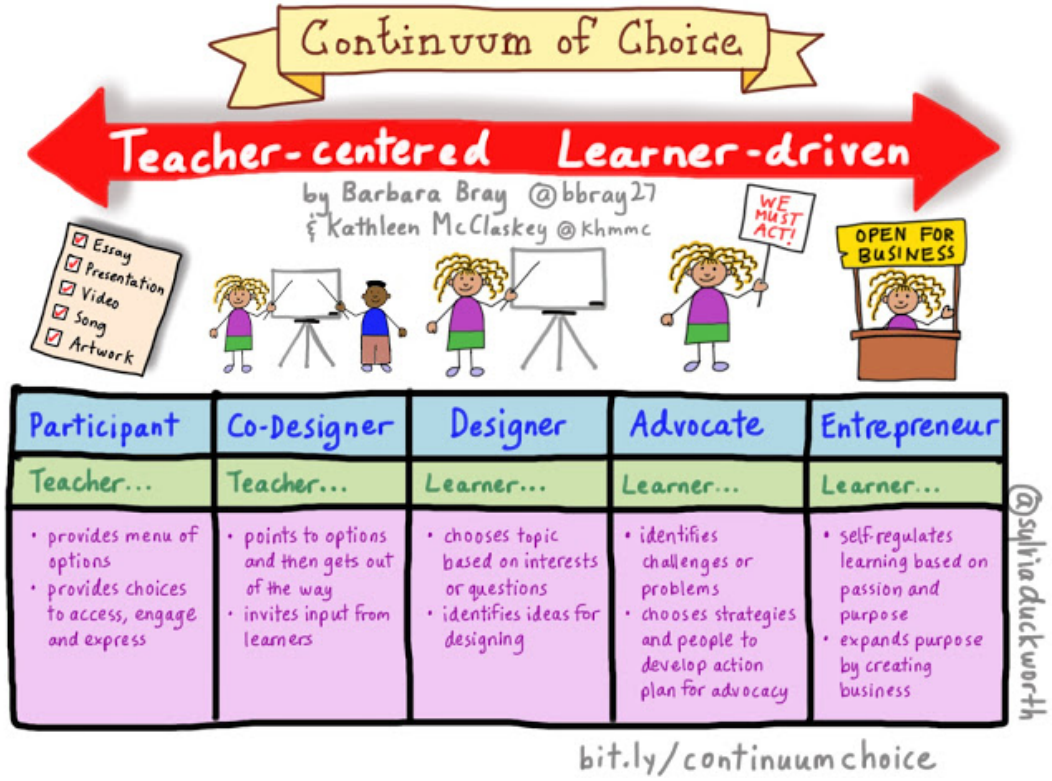


Personal vs. Personalized

- Compare between:
  - Personalized health care (something the National Health Service or Health Management Organization provides)
  - Personal health care (something you do for yourself)
- Personal goals versus institutional goals
- Practice versus content

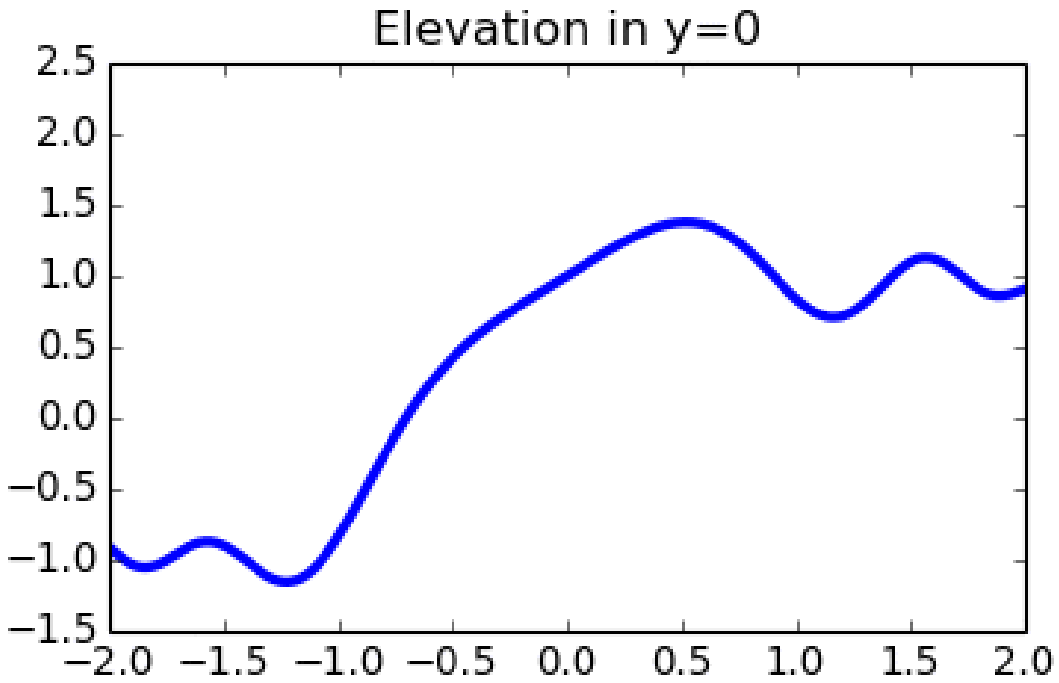
Voice and Choice

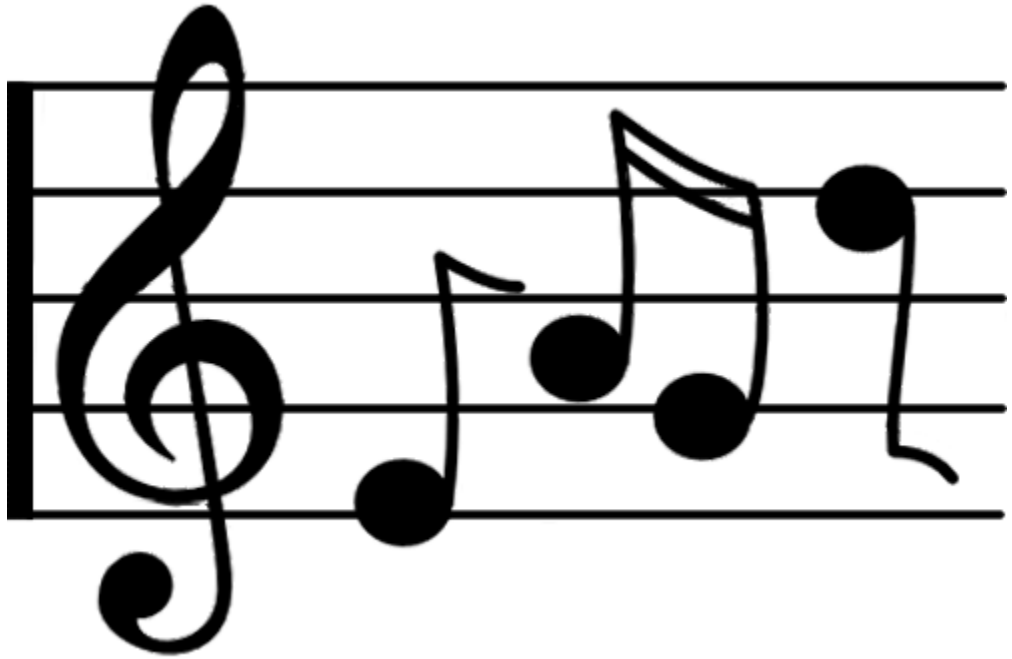




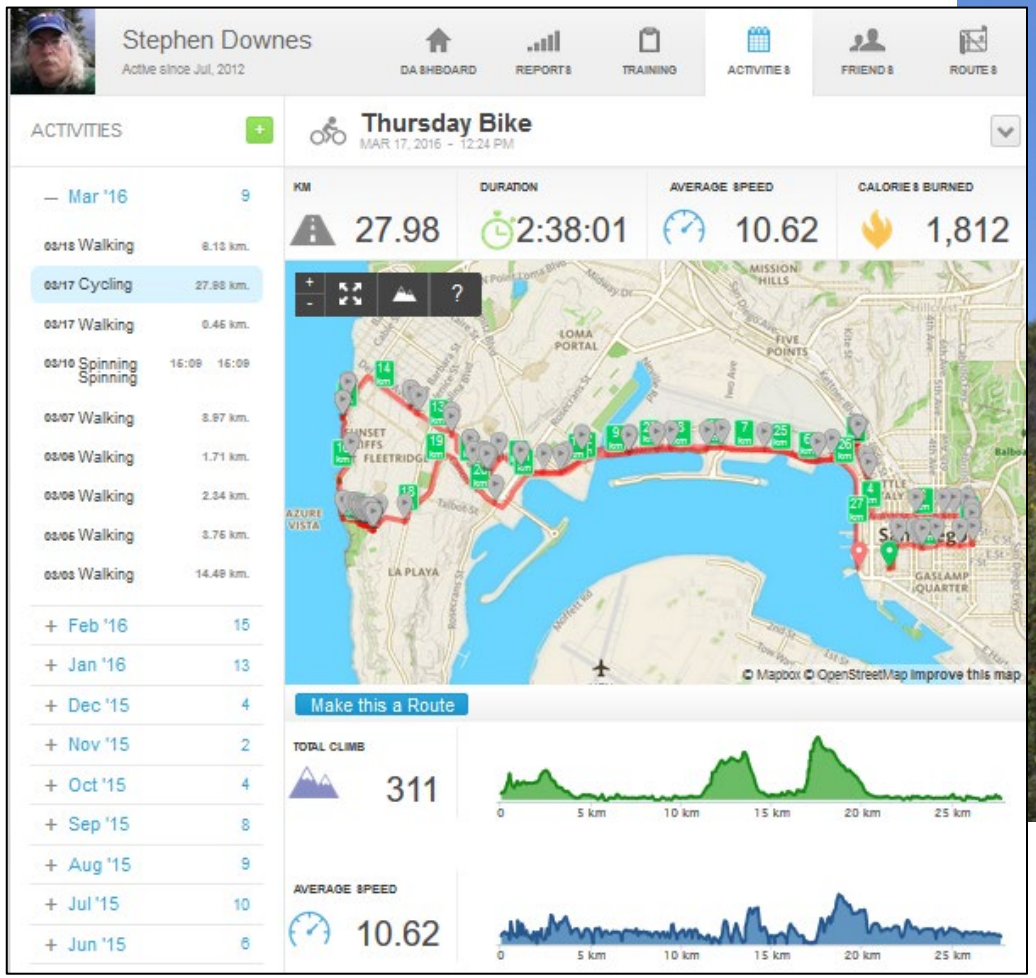
Barbara Bray and Kathleen McClaskey
Shared by Denisha Read

3. Learning Through Practice

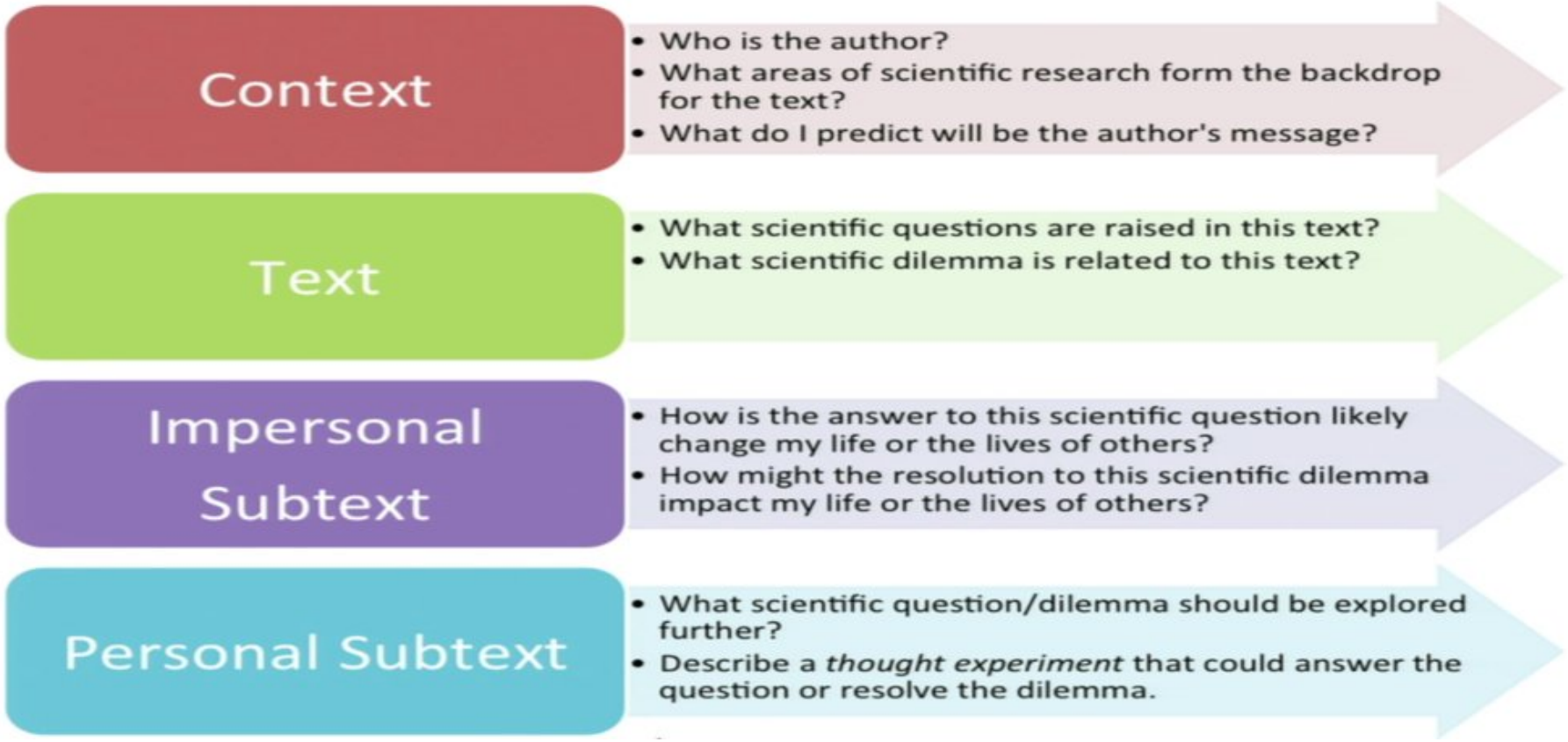




Exploring, not Following



Reading Like a Scientist



Cf Cindy Moss.

The Hackathon…

http://www.hackathon.io/events

The EduCamp

http://pertinenciaeducativa09.blogspot.ca/2009/10/educamp-colombia-aprendizaje-en-un.html

http://www.flickriver.com/photos/qadmon/3106848811/

http://www.irrodl.org/index.php/irrodl/article/view/884/1677

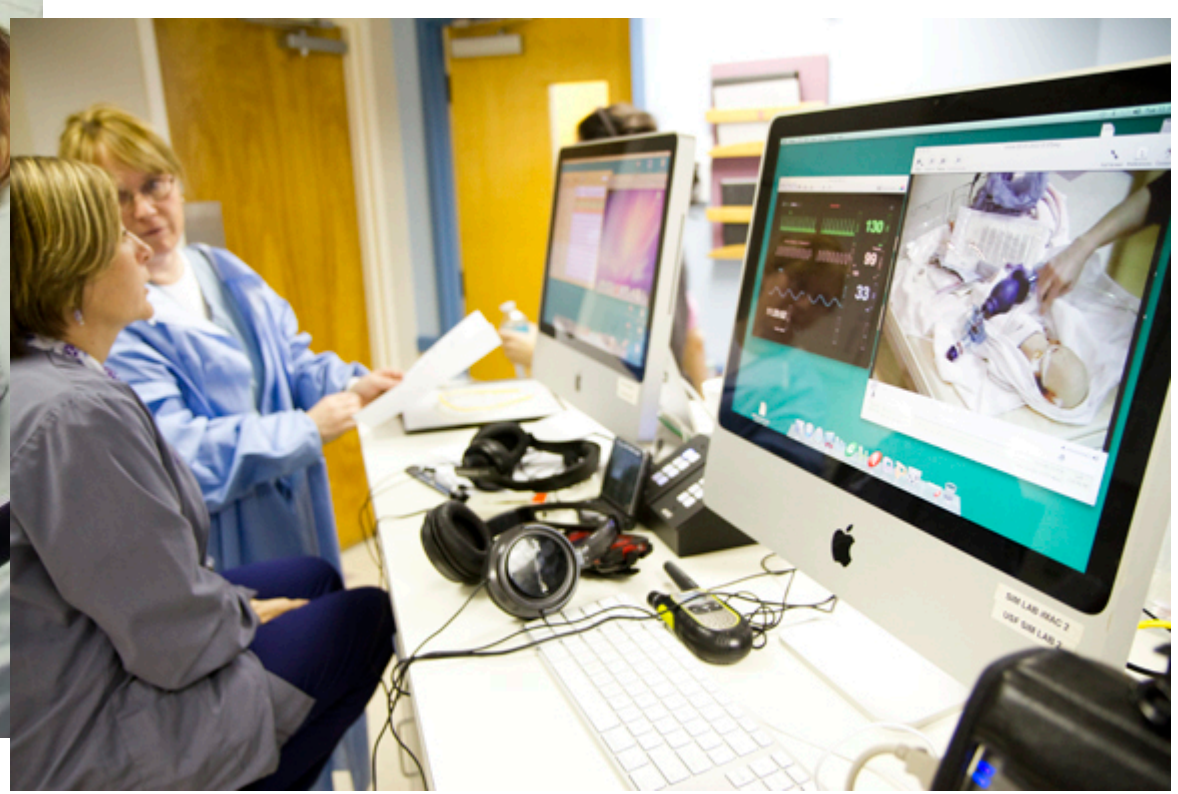
STEM Camp

Via Cindy Moss

http://www.discoveryeducation.com/STEM/connect-the-dots.cfm

Medical Simulations

http://www.army.mil/article/127148/



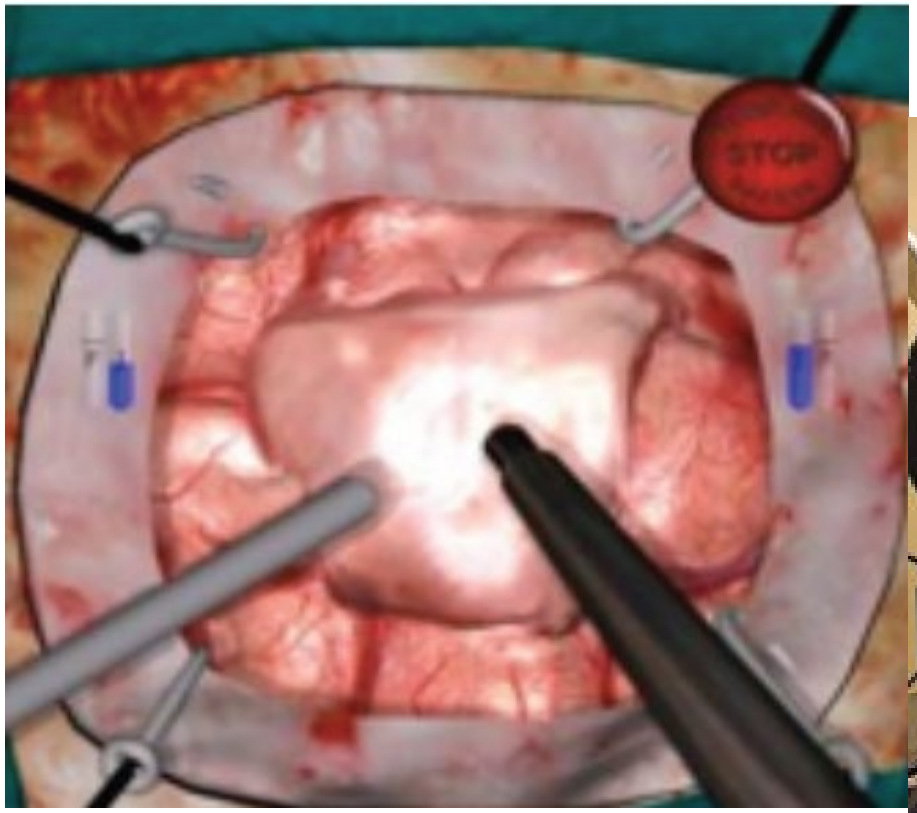
http://www.83degreesmedia.com/features/camls011012.aspx

Flight Simulators

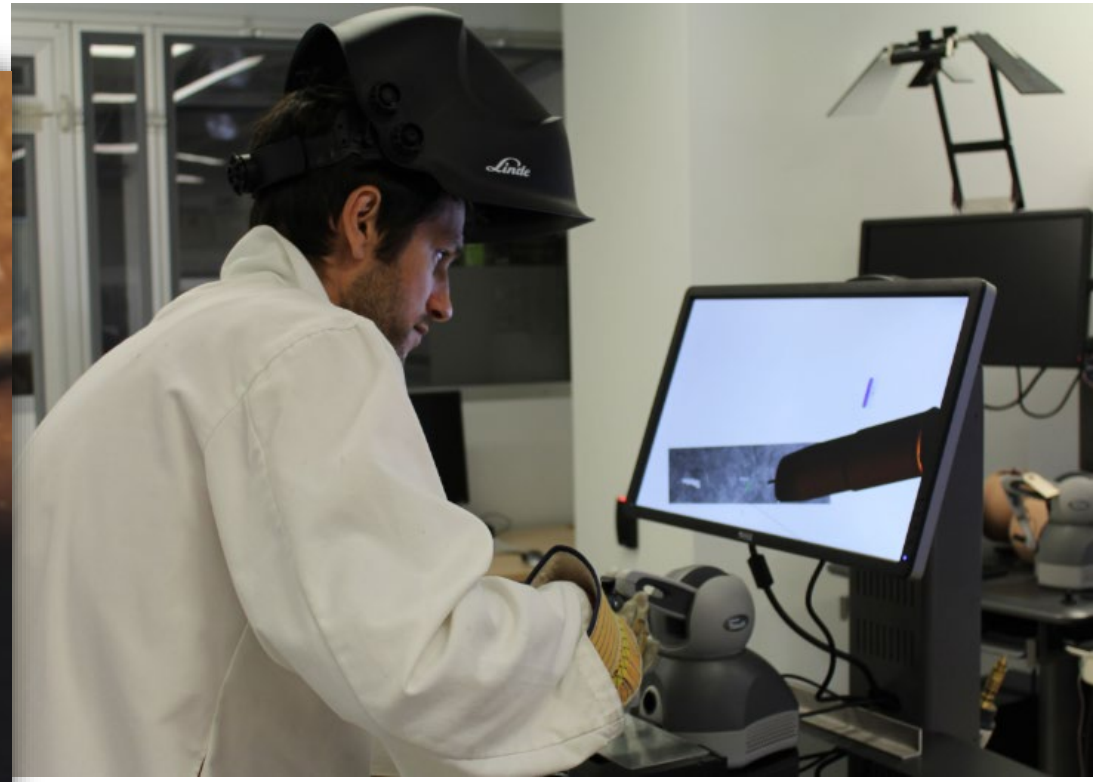
http://www.cae.com/World-s-first-AW189-full-flight-simulator-ready-for-training/

http://www.aiac.ca/canada-aerospace-industry/success-stories/cae-nh90-helicopter-simulator/

NeuroTouch Simulator



Sim-Welding



Auscultation

http://www.cardionics.com

4. Learning Communities - the cMOOC

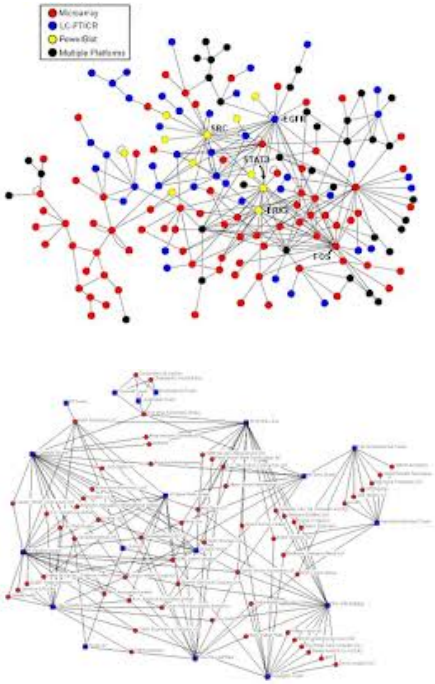
xLearning vs cLearning

contents ⟷ engagement ⟷ networks

COMMON CORE
STATE STANDARDS INITIATIVE
PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER

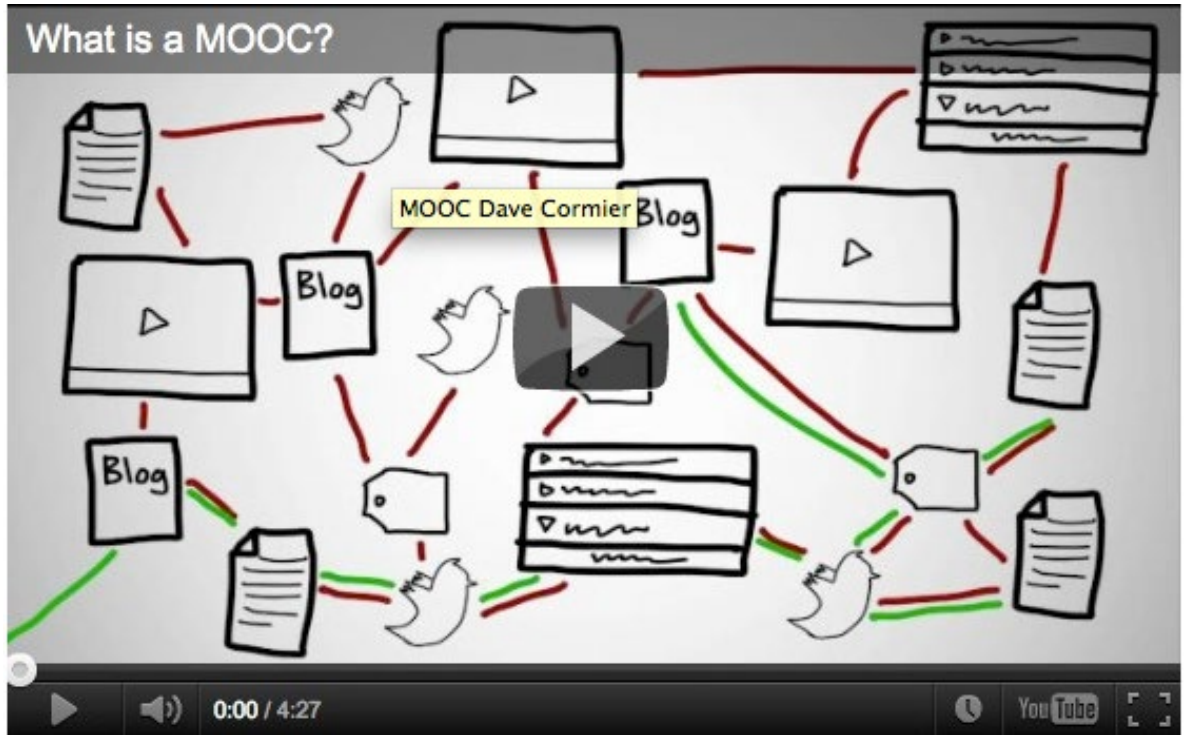
http://www.corestandards.org/

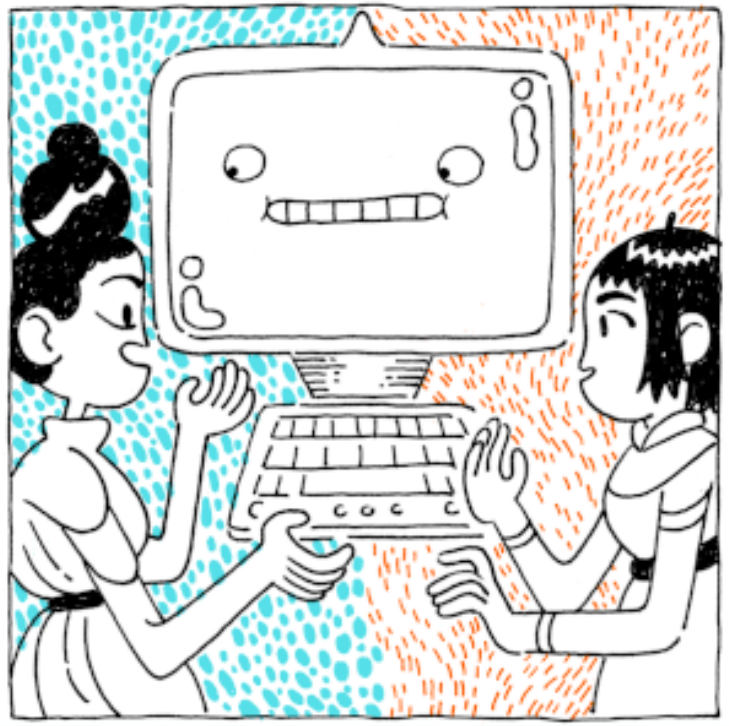
http://www.magnet.edu/



http://lisahistory.net/wordpress/2012/08/three-kinds-of-moocs/

How to Learn in a cMOOC





Learning is a process of immersion into a knowing community

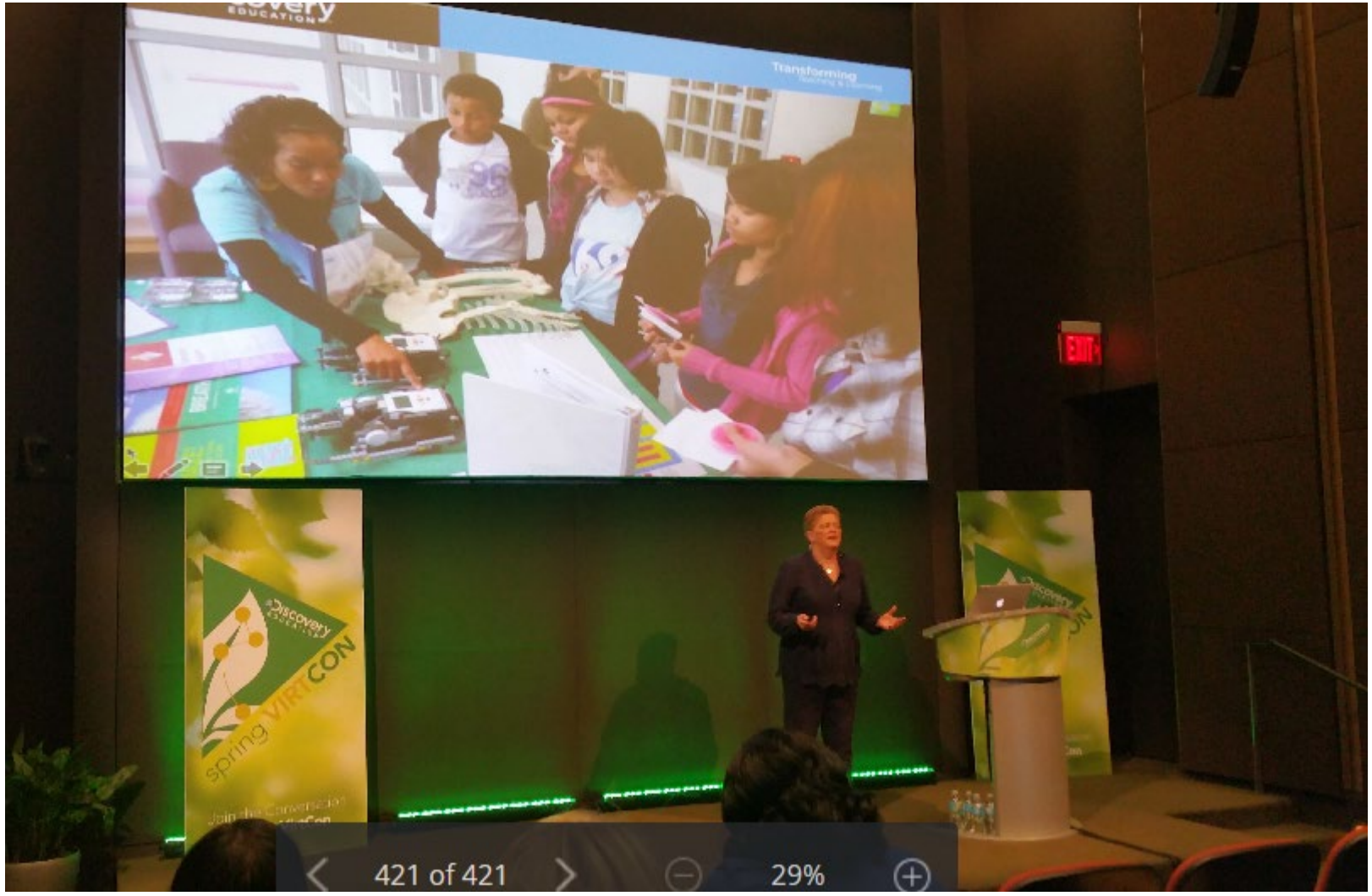
http://www.tonybates.ca/2012/03/03/more-reflections-on-moocs-and-mitx/

MOOC Design

- Course structure – a series of topics
  - The instructors will not ‘teach’ the topics, they ‘investigate’ or ‘work through’ the topics (model and demonstrate)

A Focus on Exploration

Cindy Moss: STEM is a Culture



Learning is a form of recognition

- It’s what we do naturally, as humans, from the day we are born
- And it’s something that grows and evolves into a complex set of basic literacies, including pattern recognition, critical thinking, action and behaviour, awareness of context, inference and imagination, and change (the ‘critical literacies’)

http://halfanhour.blogspot.de/2014/11/knowledge-as-recognition.html

It is essential to immerse oneself in the day-to-day activities and culture of the people who speak it.

Image: http://www.tumblr.com/tagged/tumblr%20language

Aggregation

Each person creates their own perspective on the material by selecting what seems important to them.

Image: http://melindarsmith.com/most-merciless-muse

Remixing

What we are encouraging here especially is a mixing of diverse cultures.

Image: http://alodj.com/viet-remix-hay-khoc-di-em-remix-2013-s195.html

Adaptation

Learning is not simply a process of reception and filtering.

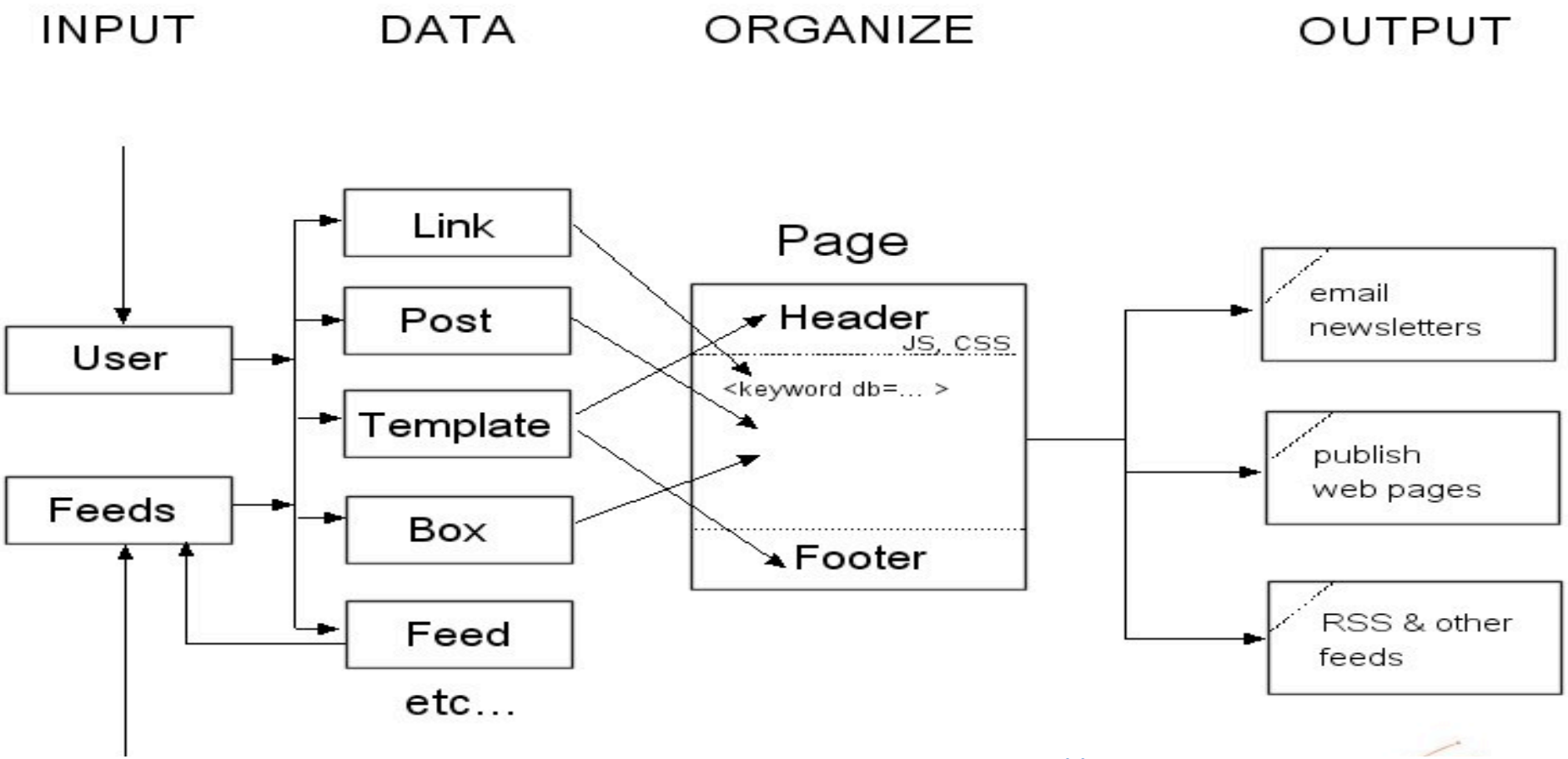
Image: http://lifeinauthoring.tumblr.com/post/50495928196/why-does-my-editor-joke-about-on-twitter-with-his-other

Feeding Forward

Sharing in public is harder.
But it's better.

Image: http://im9.eu/animation/publish-how-the-net-works

gRSShopper



http://grsshopper.downes.ca

5. Personal Learning Environments

The New Model of Work and Learning

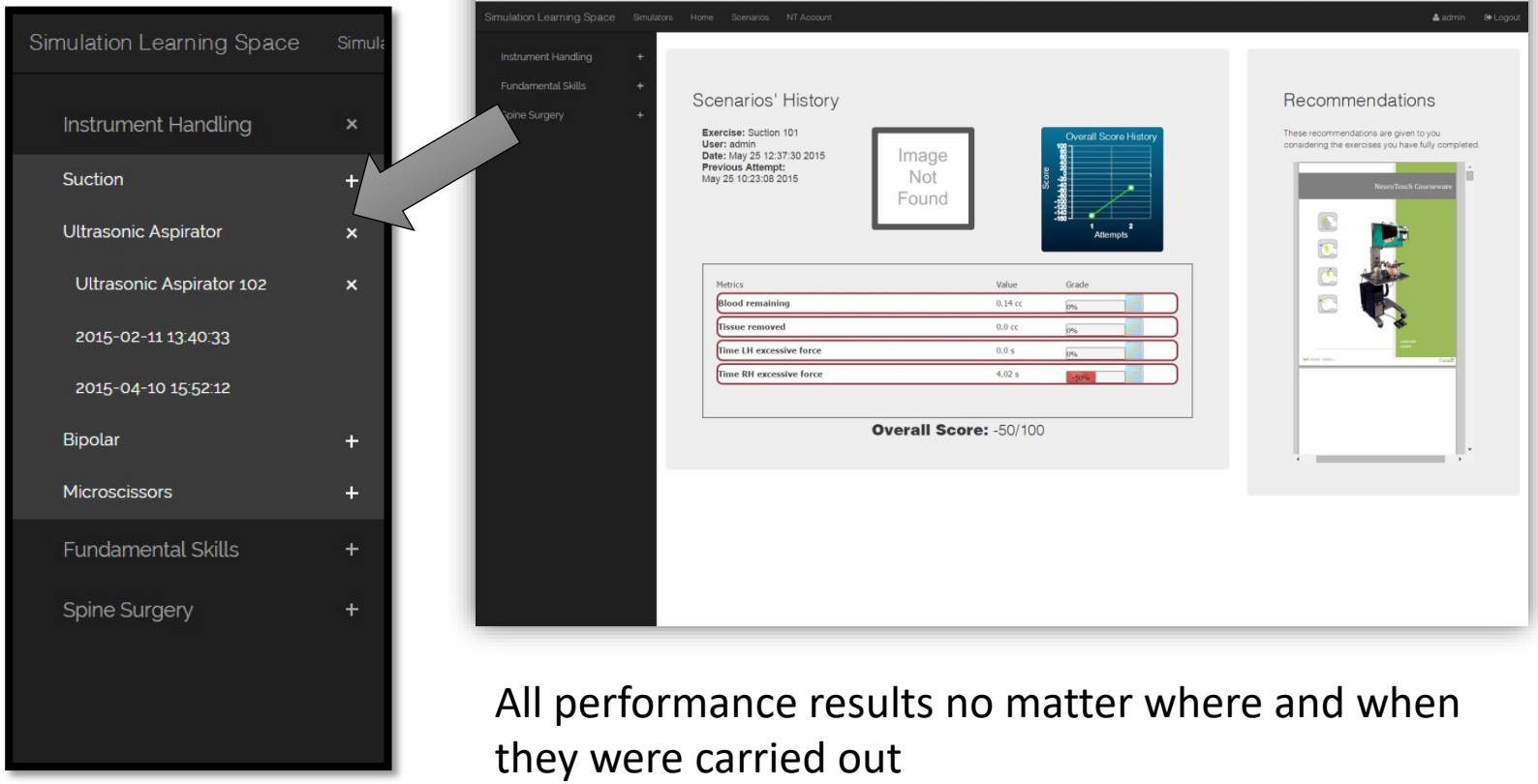
- Sharing - create linked documents, data, and objects within a distributed network
- Contributing - employ social networking applications of the Web to facilitate group communication
- Co-creating - work through networks that facilitate cooperative group work toward common goals

(Dutton, p. 12)

Personal Learning – The Concept

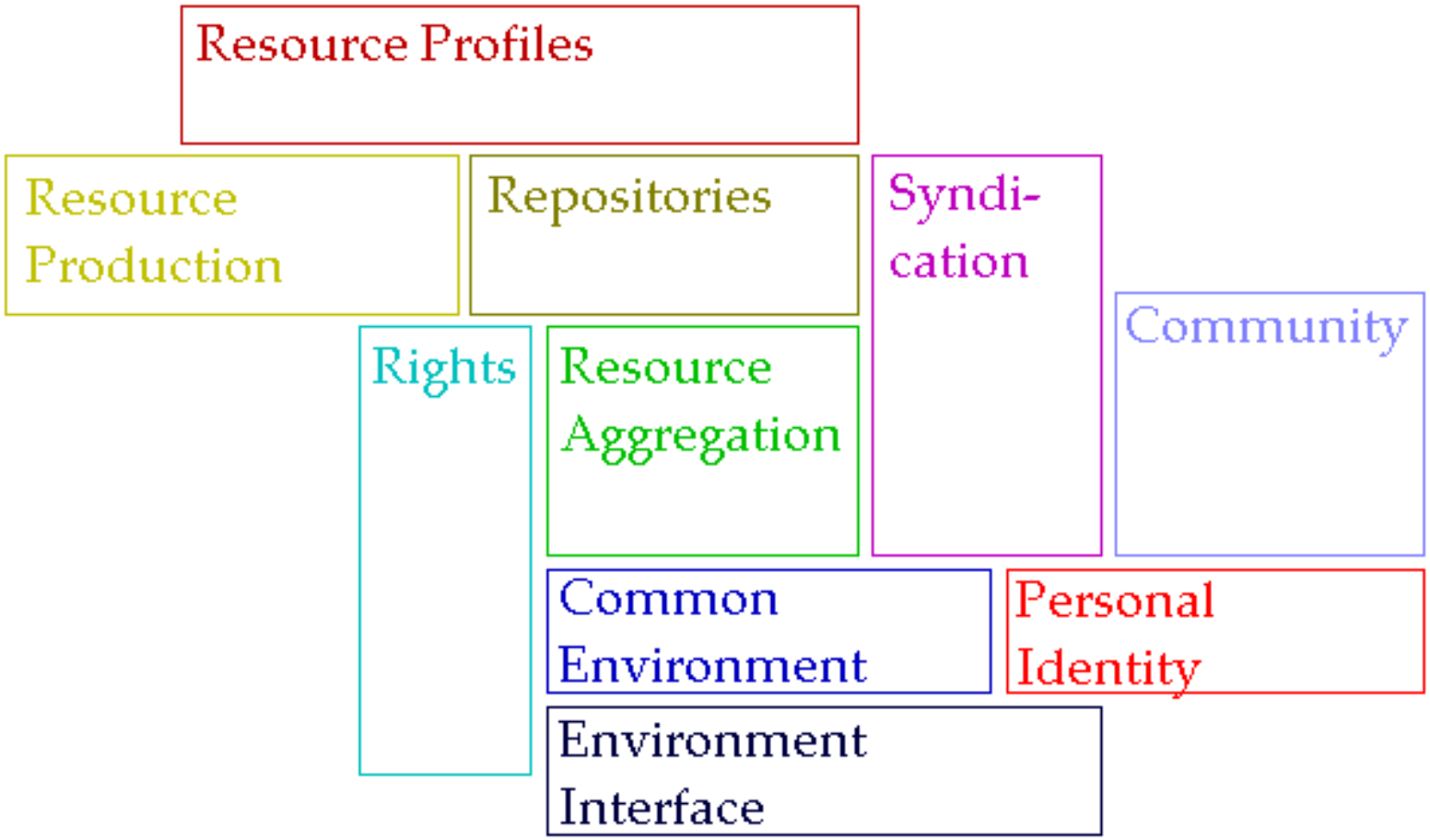
Combining Experiences

One place for all learning experiences



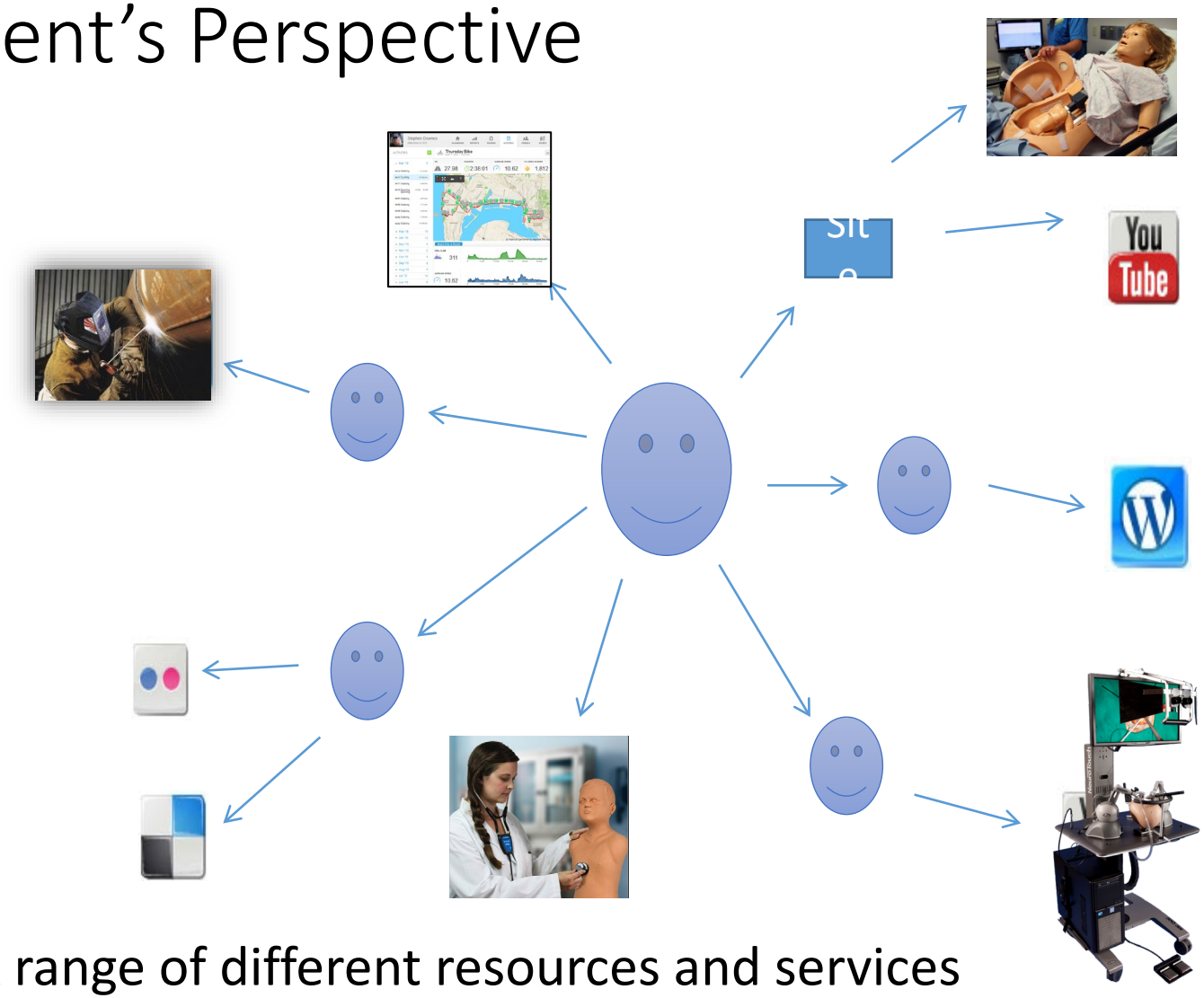
All performance results no matter where and when they were carried out

A Personal Learning Architecture



http://www.downes.ca/presentation/98

The Student's Perspective



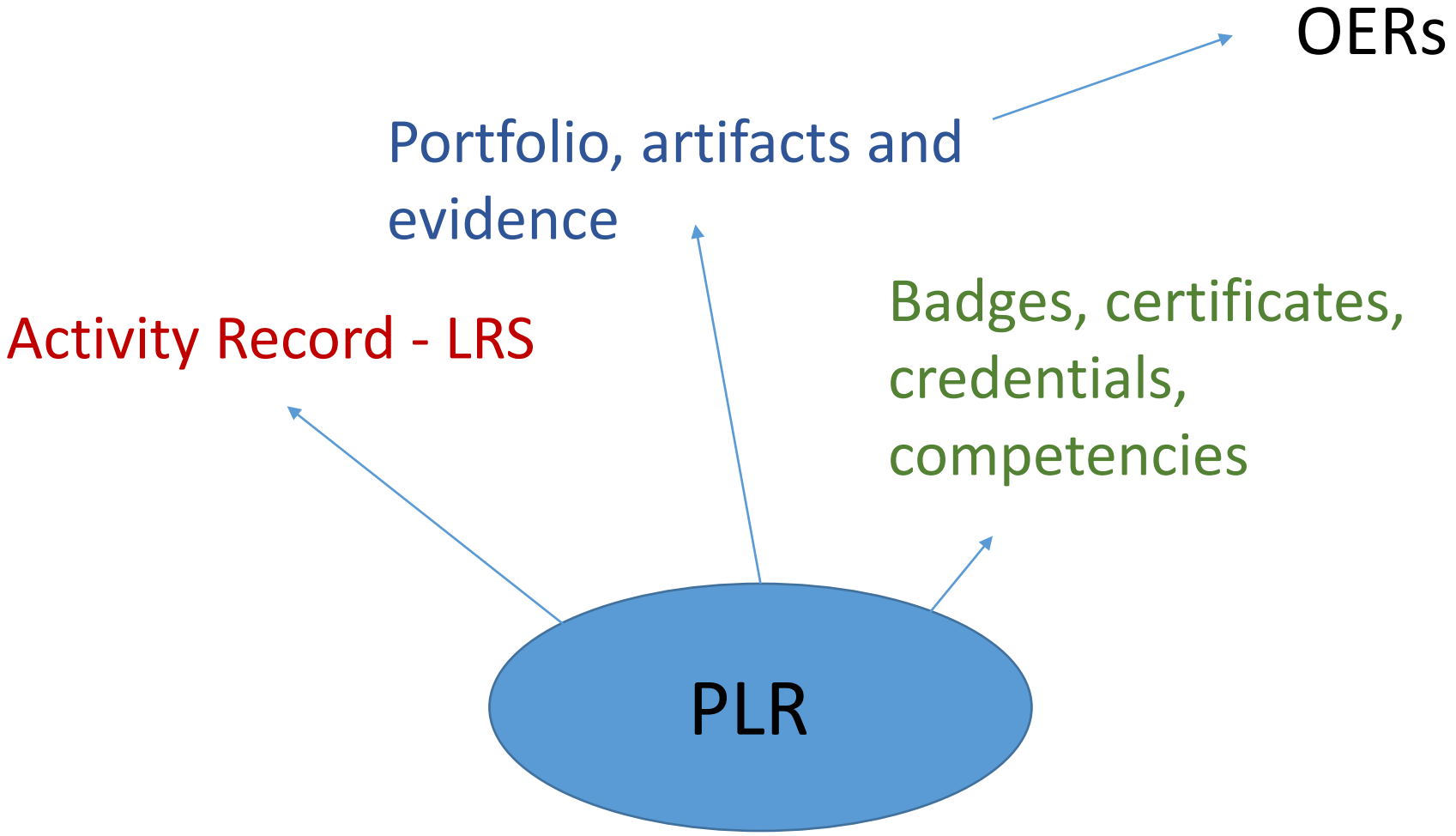
A range of different resources and services

Personal Learning Record

The Personal Learning Record – data owned by the individual, shared only with permissions

http://halfanhour.blogspot.de/2014/12/eportfolios-and-badges-workshop-oeb14.html

Personal Learning Record



Everything is Built Around the Personal Learning Record

This is a *new* type of data – we call it the *personal graph*.

Each person has their own *private* personal graph.

Me

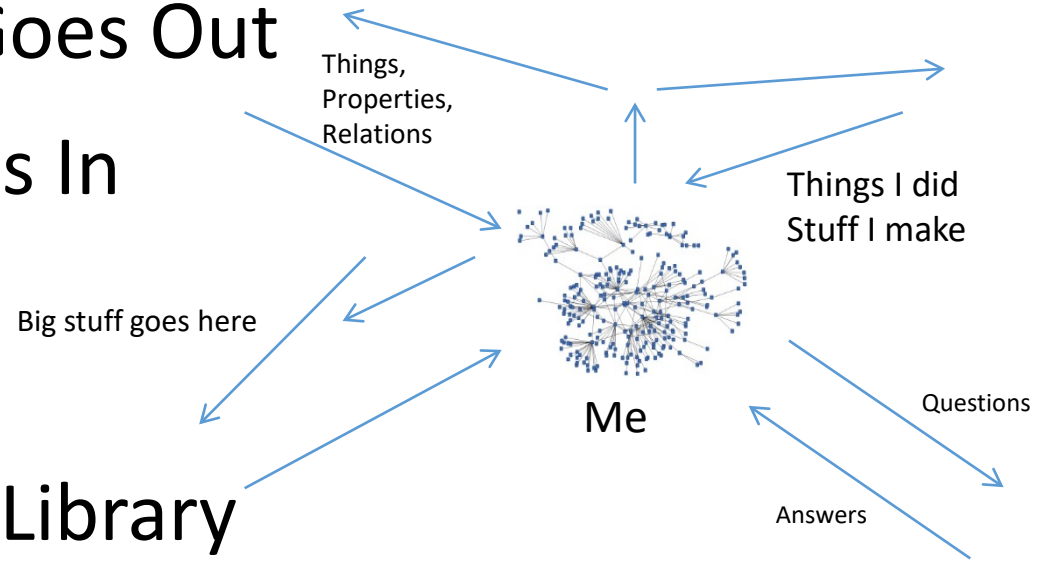
The PLR contains all a person's learning records, including:

- certificates, badges and credentials
- activity records, test results, scores
- Assignments, papers, drawings, things they create

Everything is Built Around the Personal Learning Record

Stuff Goes Out

Stuff Comes In



Learning Activities

- I read and watch stuff
- I play with toys
- I make stuff

Personal Library

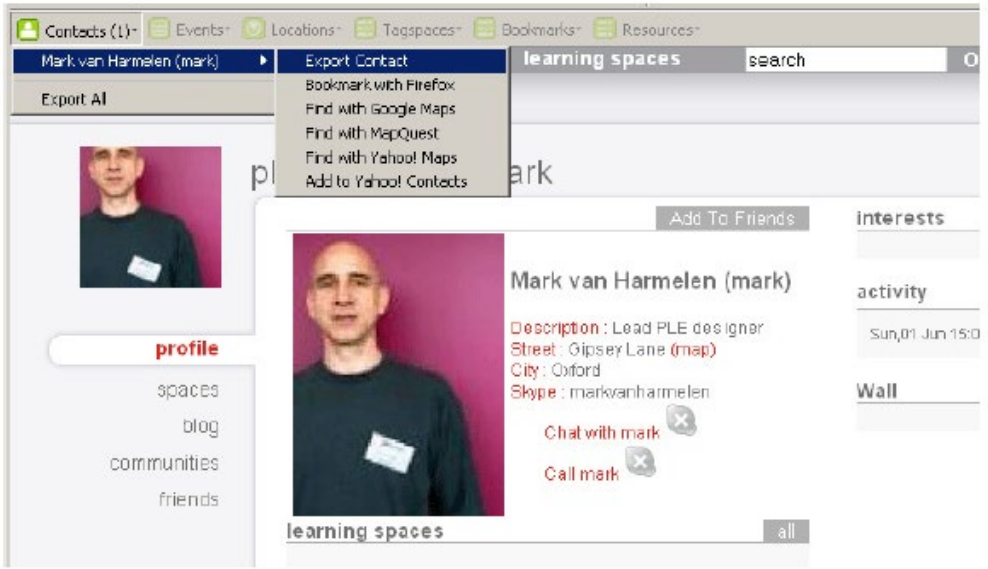
- Pictures
- Books
- Movies

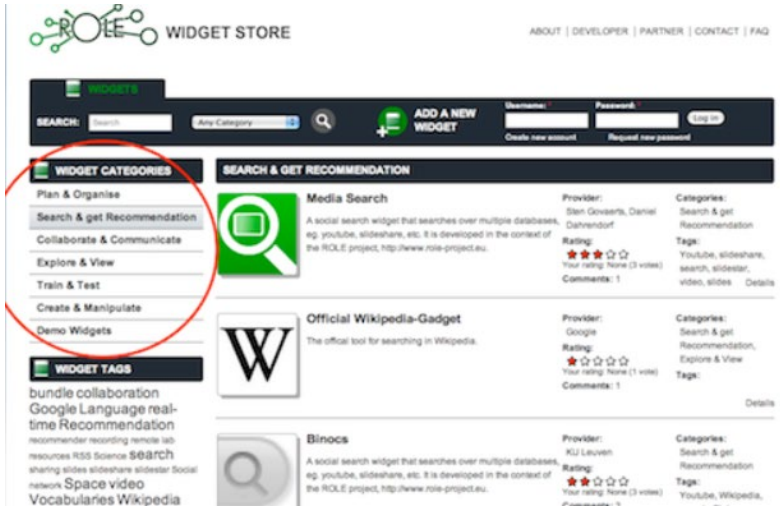
Learning Analytics Services

Relevant PLR Projects

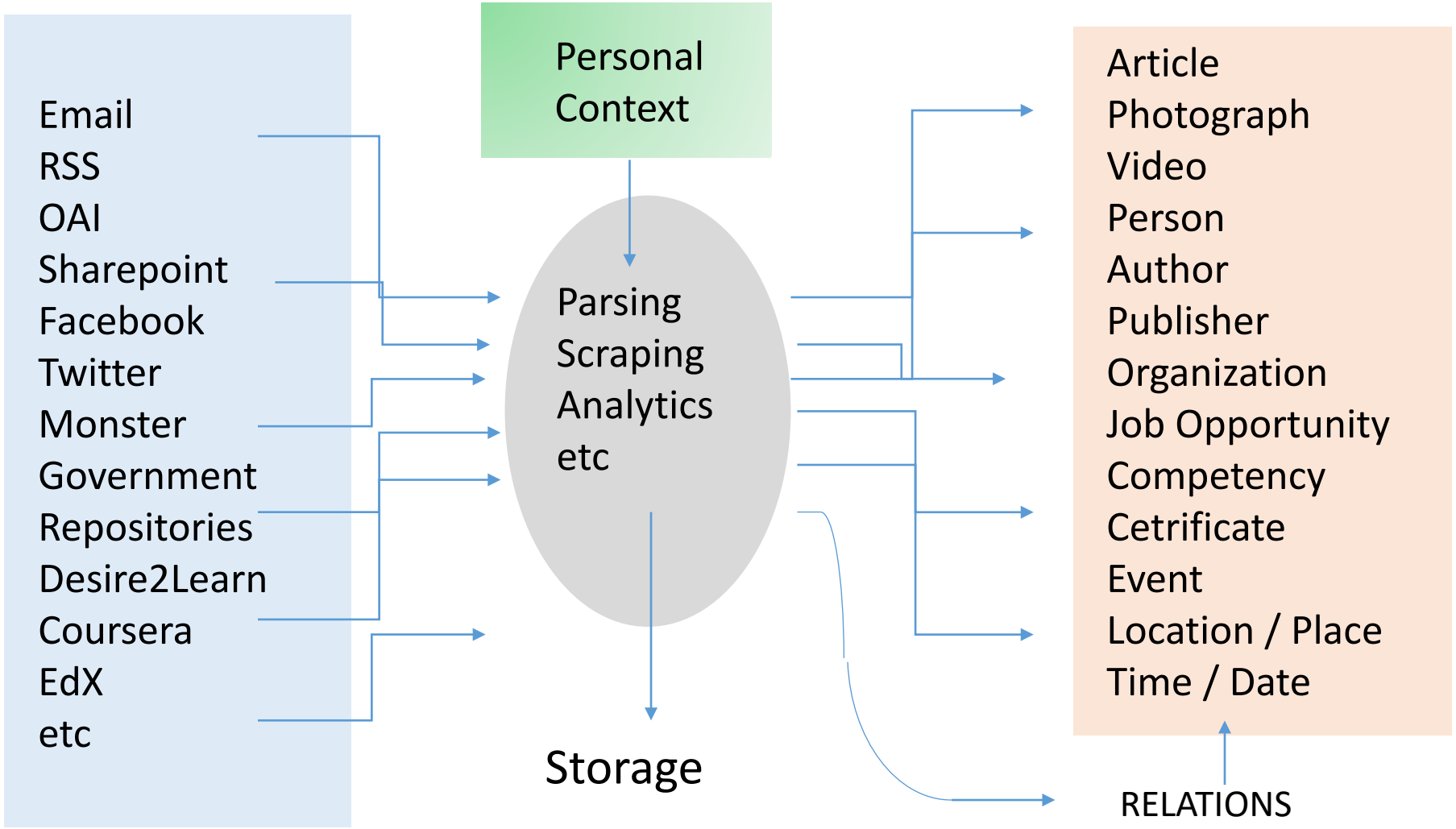
- Manchester PLE Project
- Responsive Open Learning Environments (ROLE) http://www.role-project.eu/
- Known http://withknown.com/
- Learning Locker http://learninglocker.net/
- Mahara https://mahara.org/

http://personalis.wikispaces.com/PLE+Projects





Graph Aggregation and Storage



Personal Data

Third parties can provide analytics services, but they don’t get free unfettered access to the data any more (think of data like money)

Creativity Tools

Charity Harbeck @harbeckc · 3m

Use the stream format in layout of padlet.com for easy reading and following of conversation **#SpringVirtCon**

Padlet is the easiest way to create and collaborate in the world

From your hobby to your career, your class notes to your final exam, your mood board to your runway show, padlets help you organize your life.

https://padlet.com/

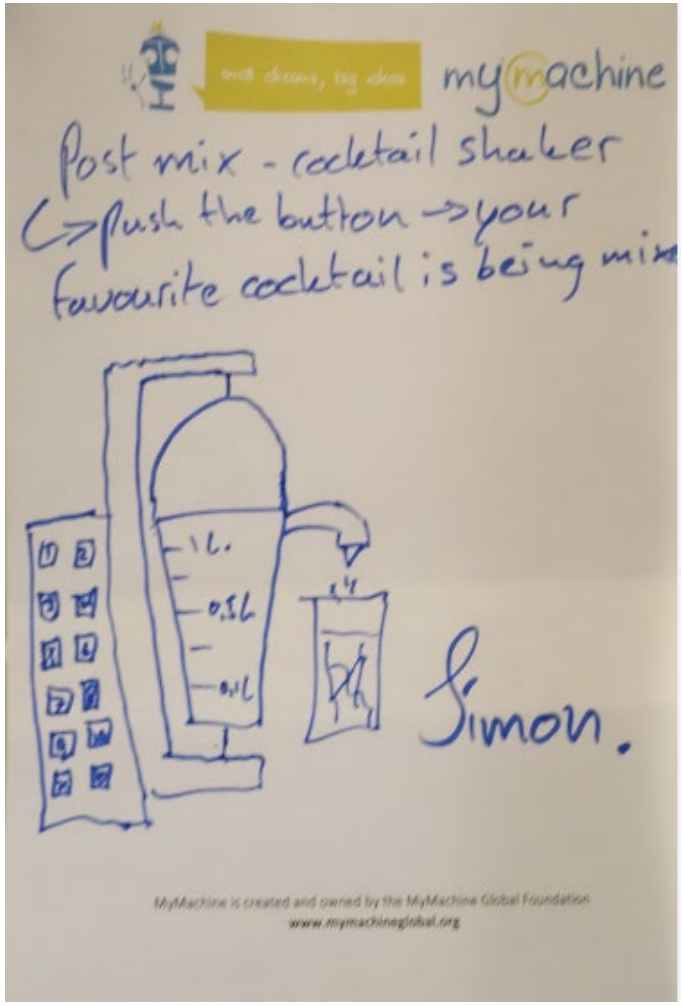
https://www.tes.com/lessons

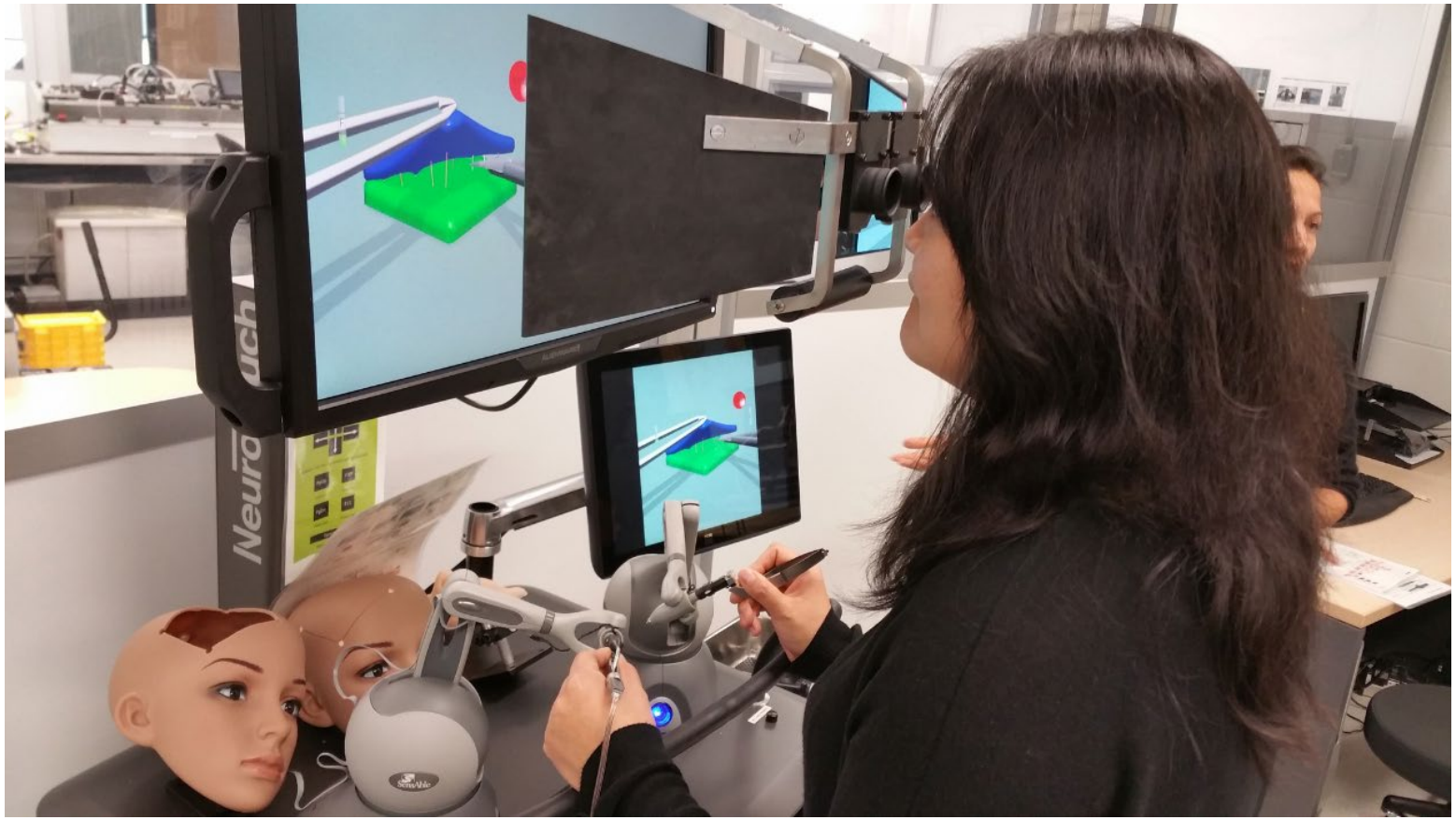
Personal Cloud

Synchronized cloud data services (including Owncloud) to support data portability

Distributed Network

Projection of learning services into multiple platforms

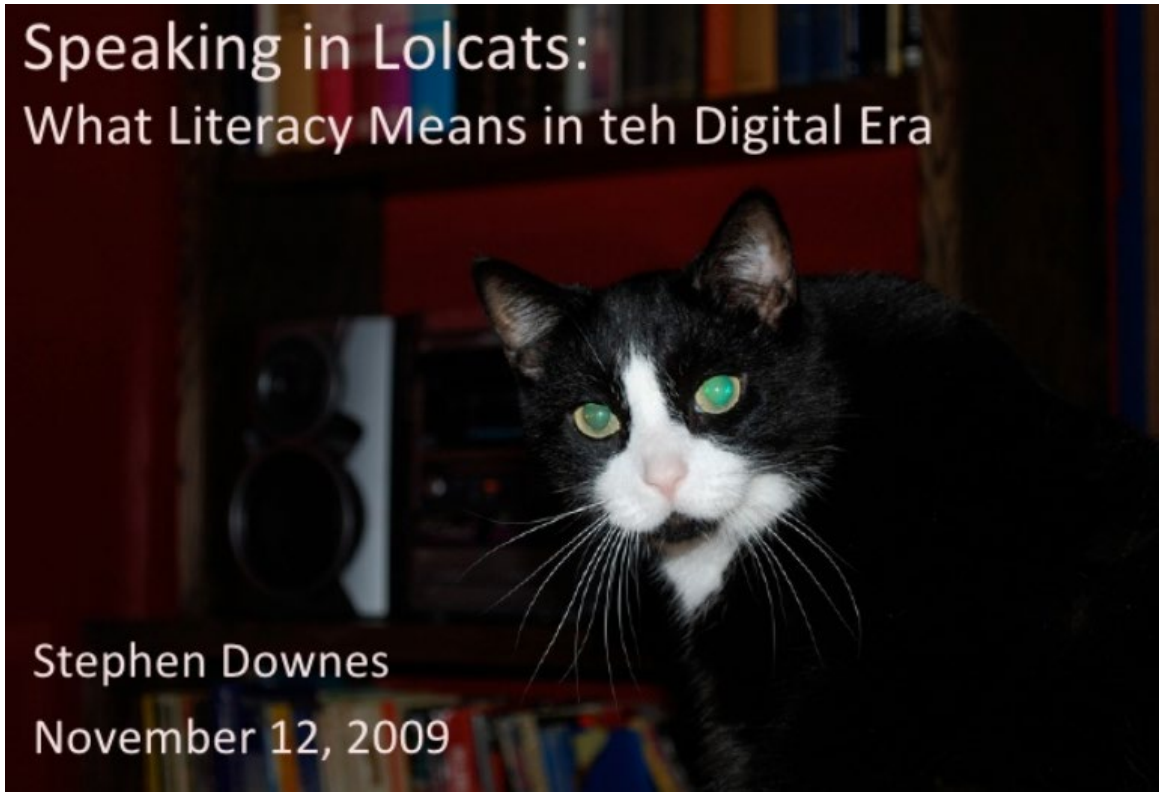




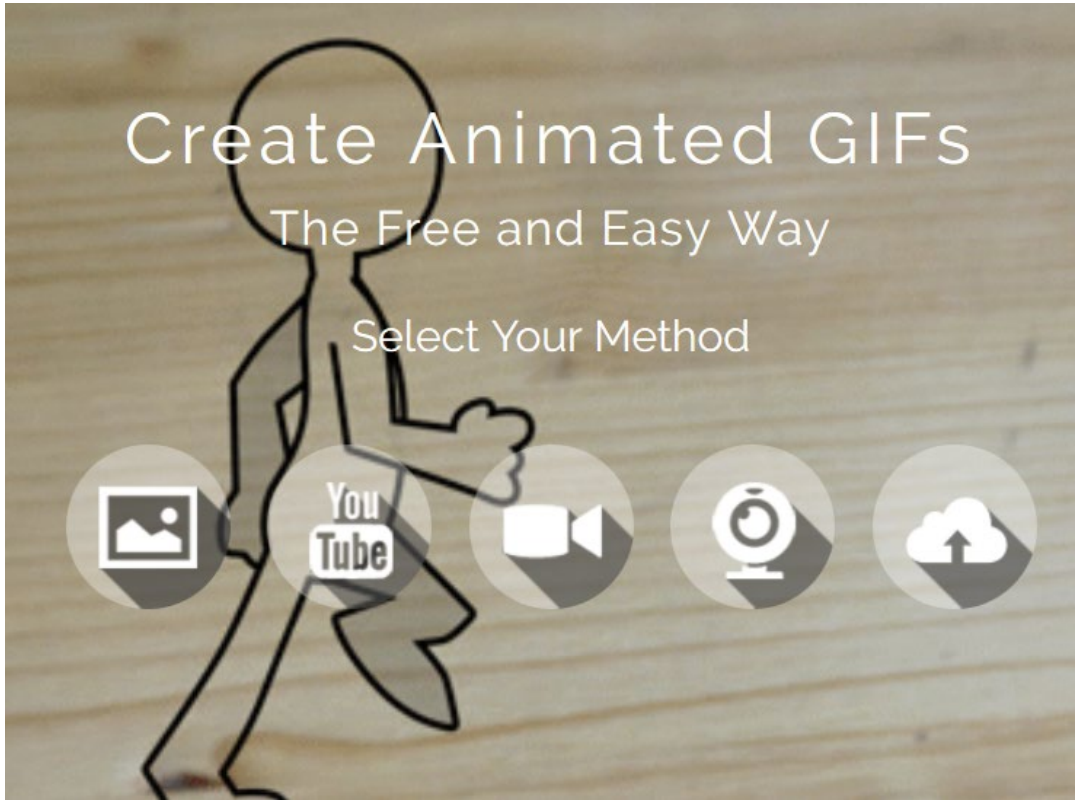
Connecting to real learning and workplace environments

http://www.nrc-cnrc.gc.ca/eng/rd/medical/

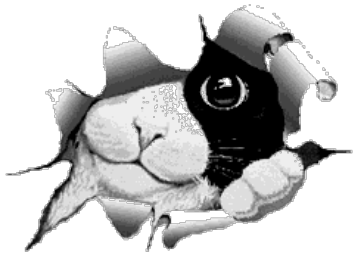
What’s Next?



http://www.downes.ca/presentation/233



http://makeagif.com/



Stephen Downes

http://www.downes.ca

Spring VirtCon 2016 Agenda

All sessions will be live streamed at this webpage: http://links.discoveryeducation.com/springvirtcon. Simply visit the page at the time the session you are interested in starts. *All times are in EST.*

Time	Session Title	Presenter
9:00 AM	Welcome	Steve Dembo
9:10 AM	Featured Session: Engaging Students in STEM	Cindy Moss
10:00 AM	Formative Assessment Using Free Digital Tools	Kati Searcy
10:30 AM	Who is Engaged?	Erica Phillips
11:00 AM	Voice and Choice Through Discovery	Denisha Read
11:30 AM	How Do You Know What They Know?	Dave Tchozewski
12:00 PM	Featured Session: Personal and Personalized Learning	Stephen Downes
1:00 PM	Let's Get Personal. Using Discovery Education Techbooks to Meet the Needs of Every Student	Patti Duncan
1:30 PM	Connecting the Dots: Personalized & Project-Based Learning	Marita Diffenbaugh
2:00 PM	EdTech Tools Get Creative With Formative Assessments	Patricia Brown
2:30 PM	0-50 Ways to Keep Students Engaged	Brandon Wislocki
3:00 PM	Featured Session: Media Diversity and Cultural Responsiveness	Rafranz Davis