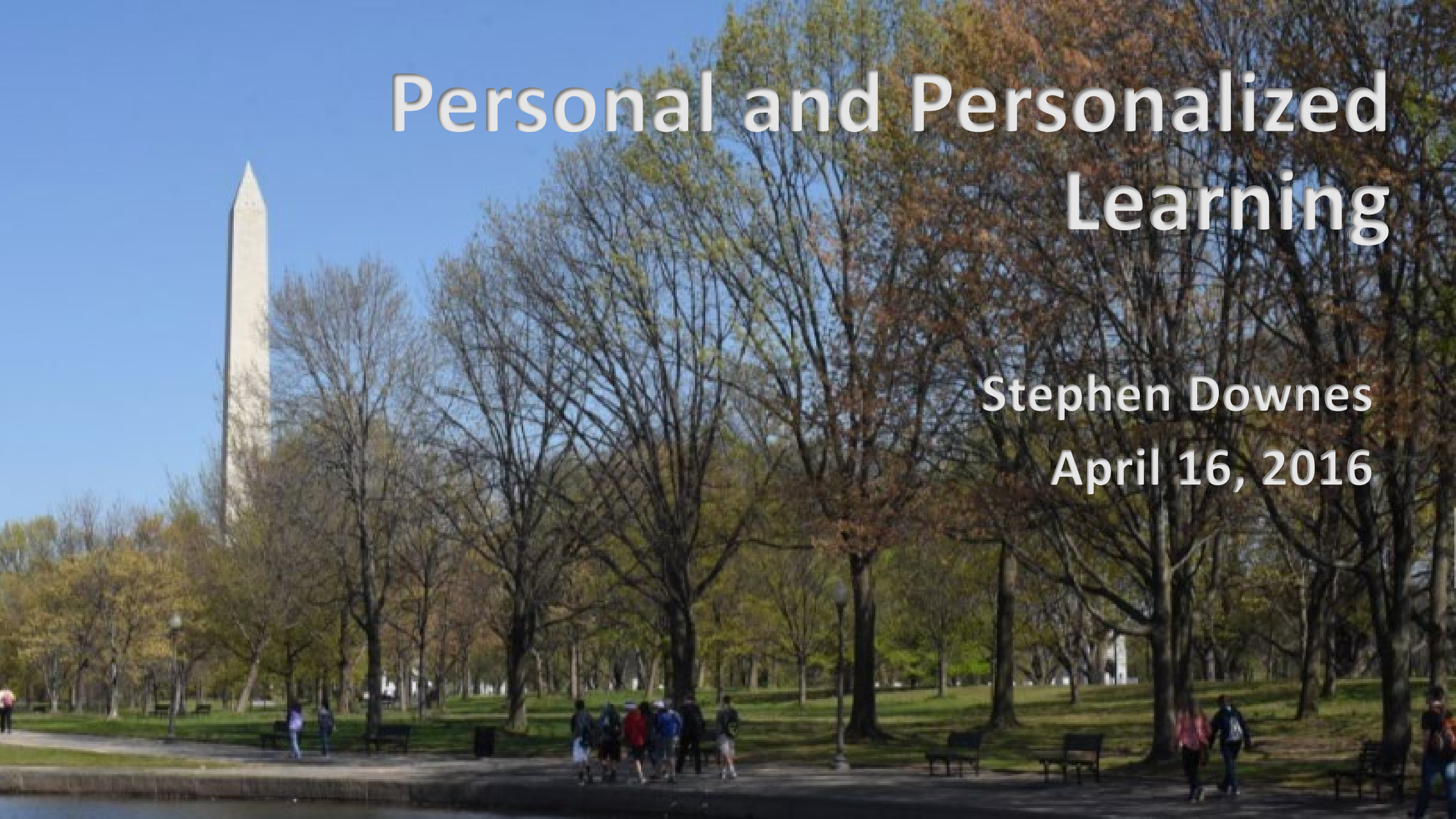


# Personal and Personalized Learning

Stephen Downes

April 16, 2016



# The Inflexible Law of Learning

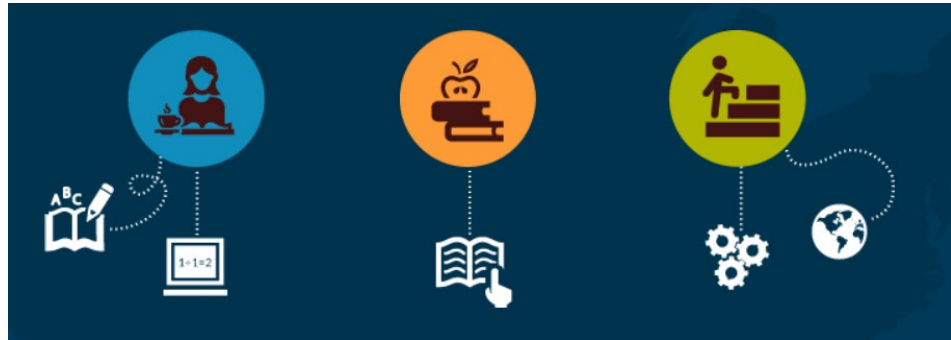
It's when we do stuff that we learn, not when stuff does something for us.



# 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](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 ....”

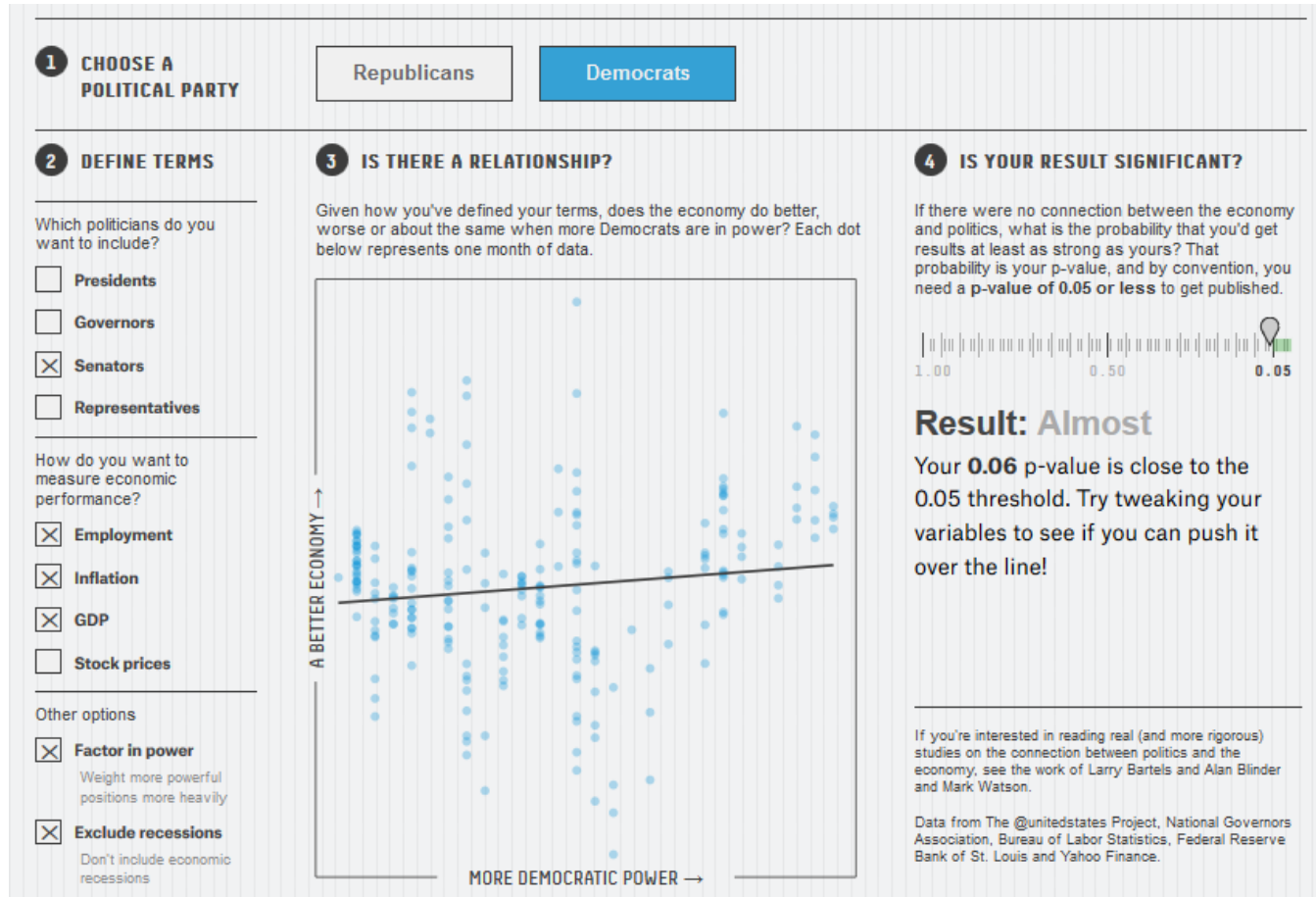
CIHR, <http://www.cihr-irsc.gc.ca/e/39033.html>

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**

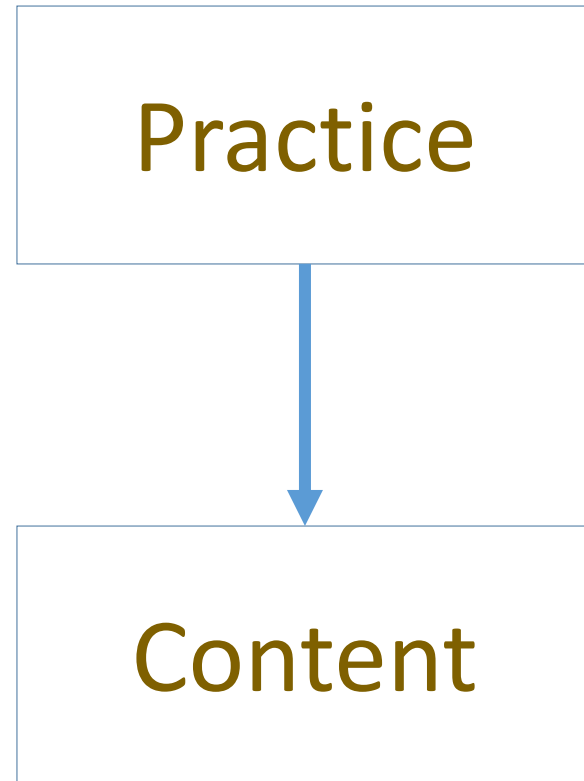
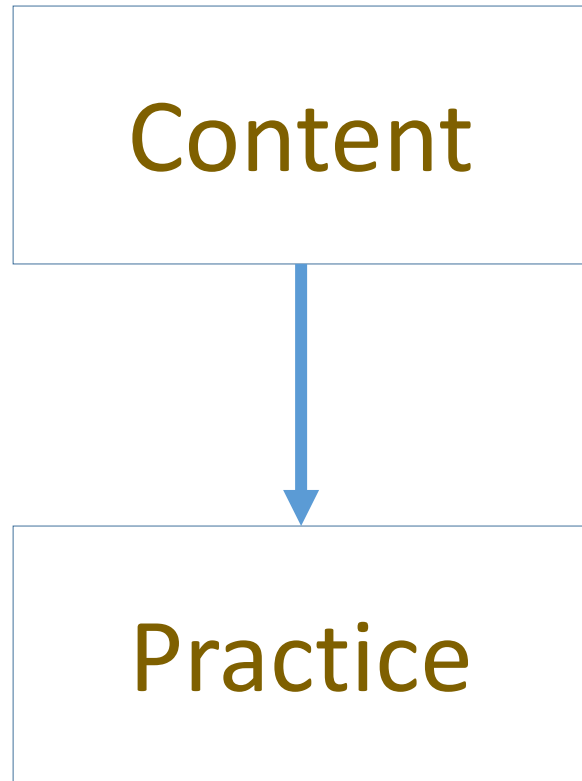
# Personalization?

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



## 2. Two Approaches...



# Two Approaches...

Defines an ideal state

Content



Practice

TEST

Person tests you

Defines a desired state

Practice

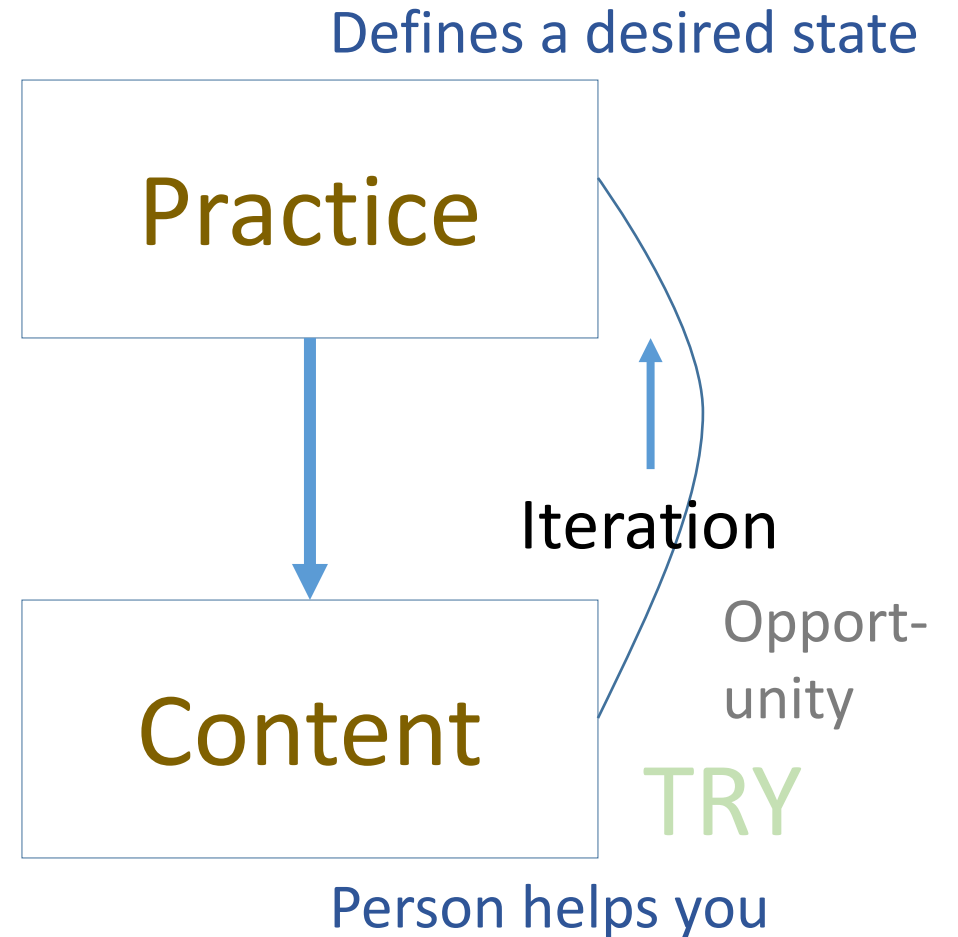
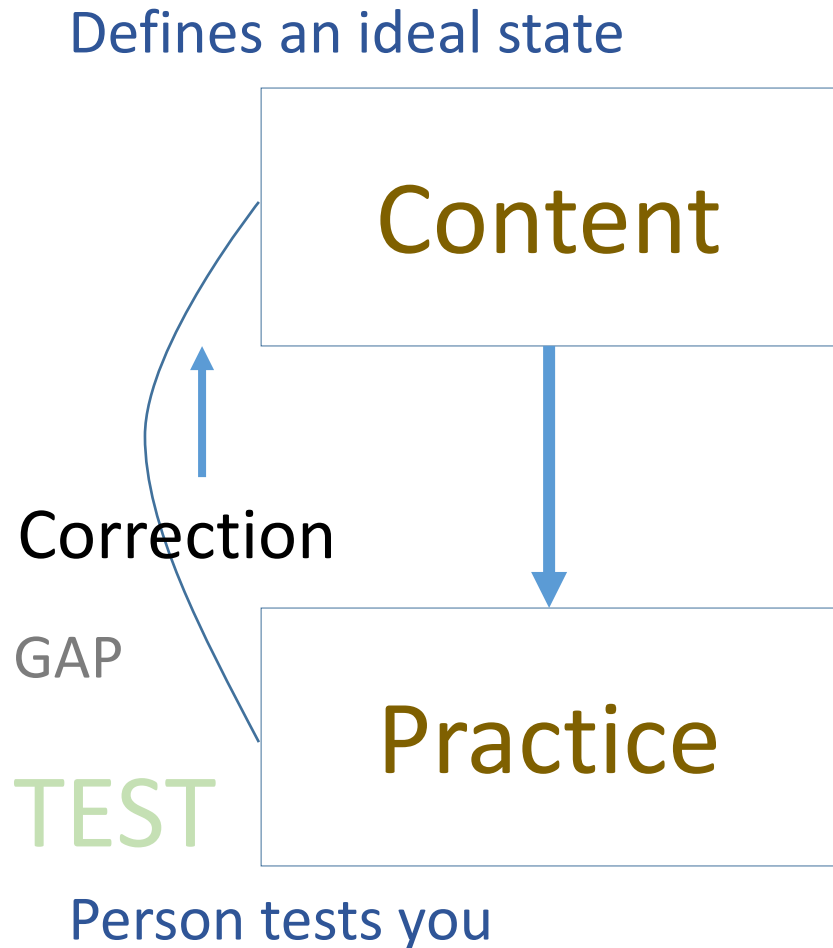


Content

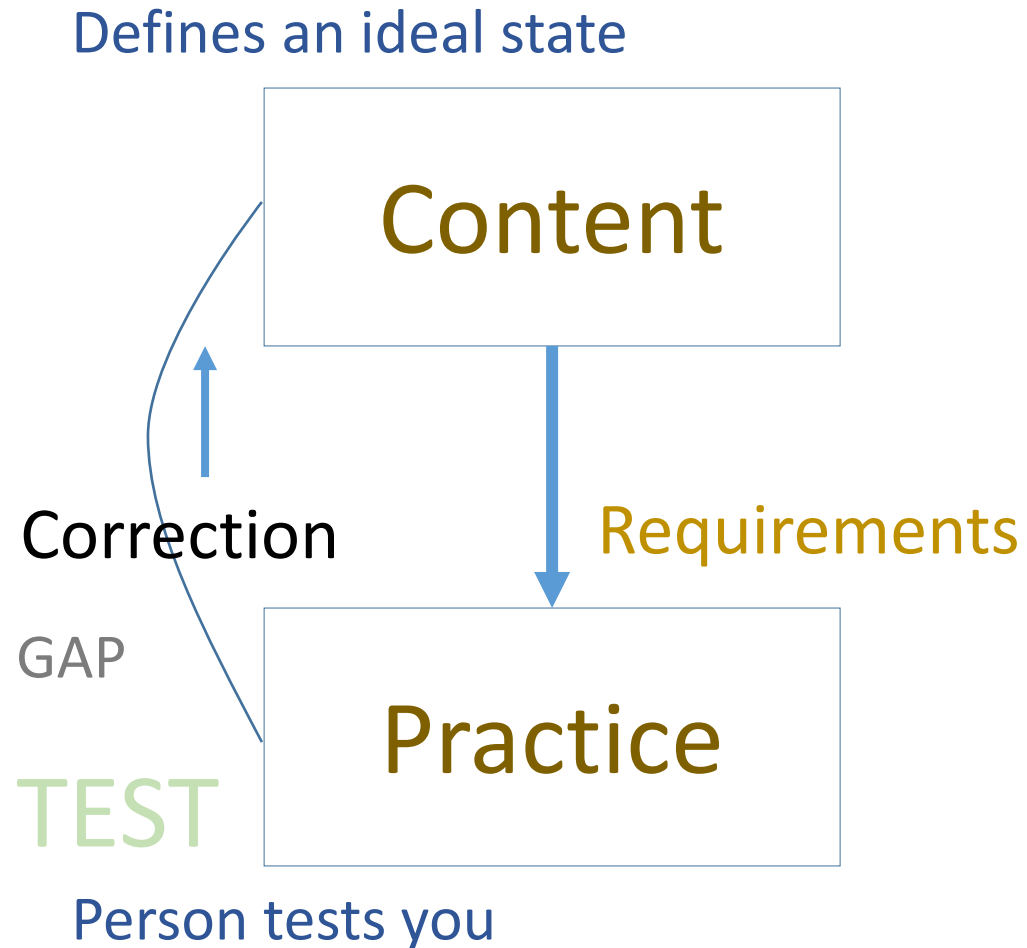
TRY

Person helps you

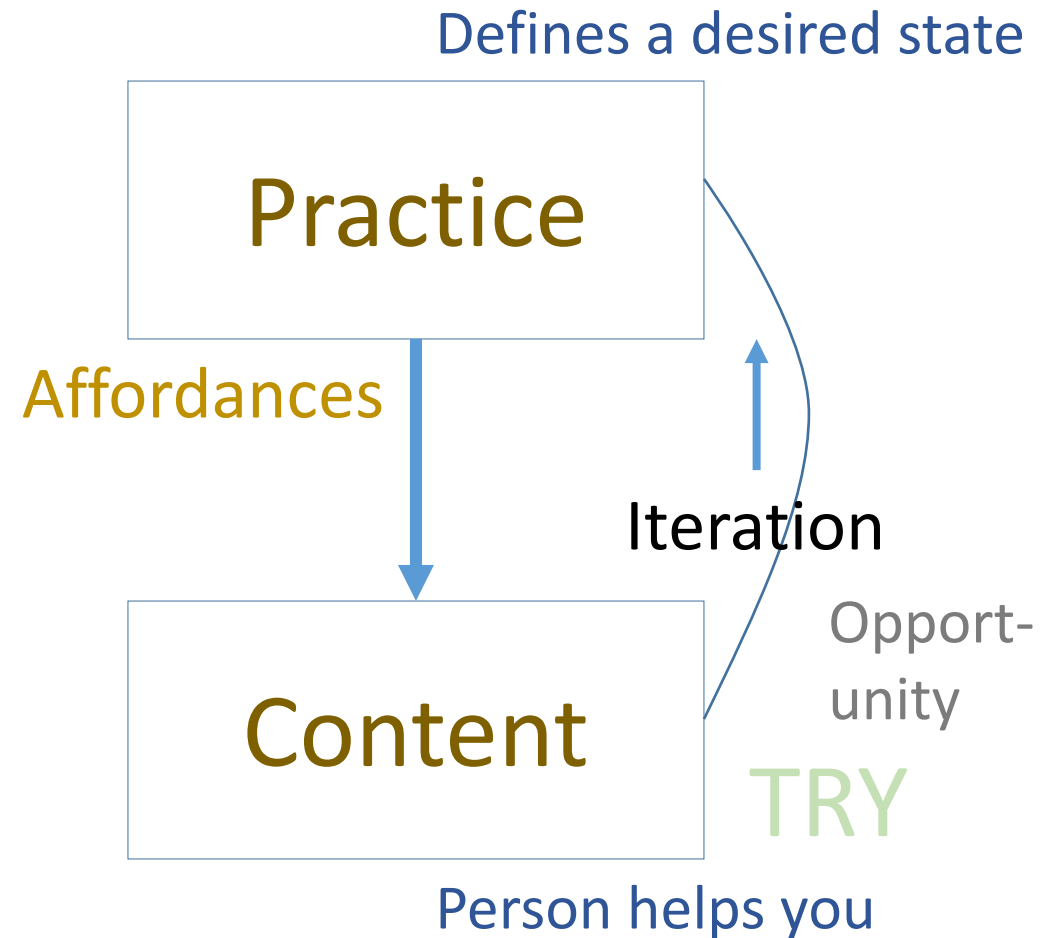
# Two Approaches...



# Library

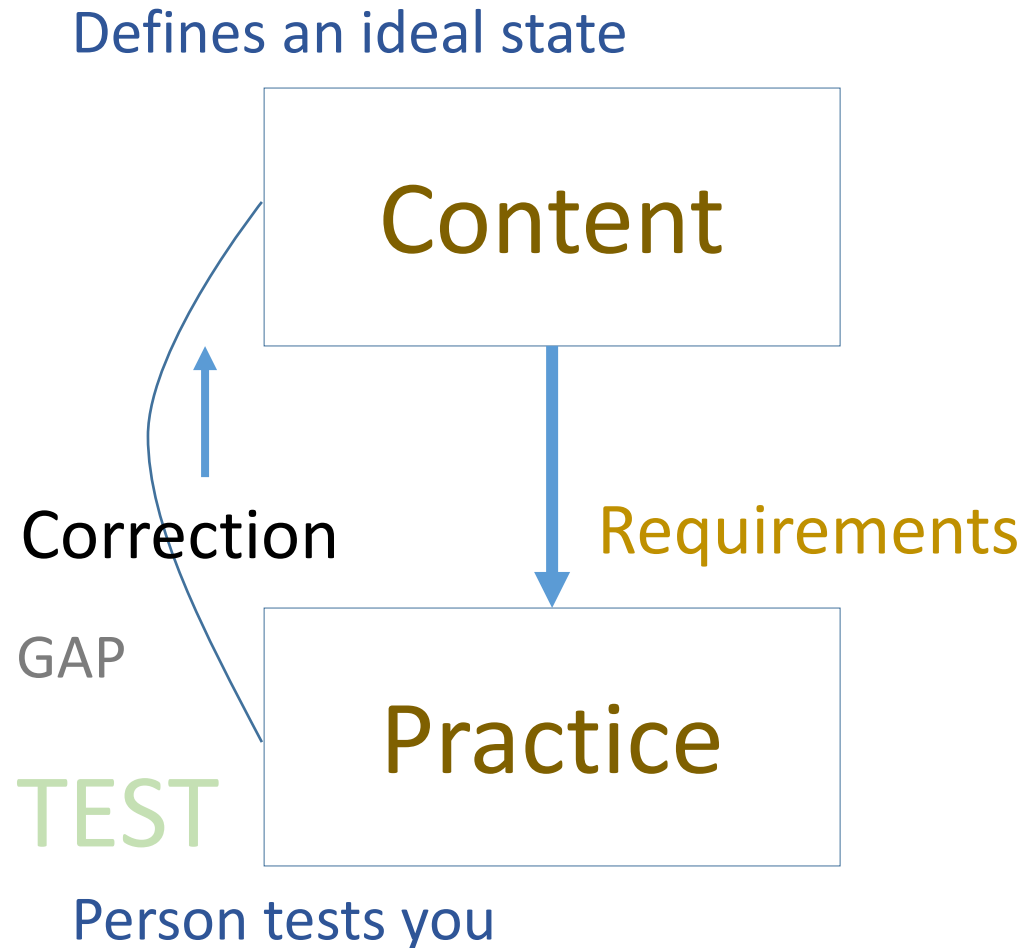


# Environment



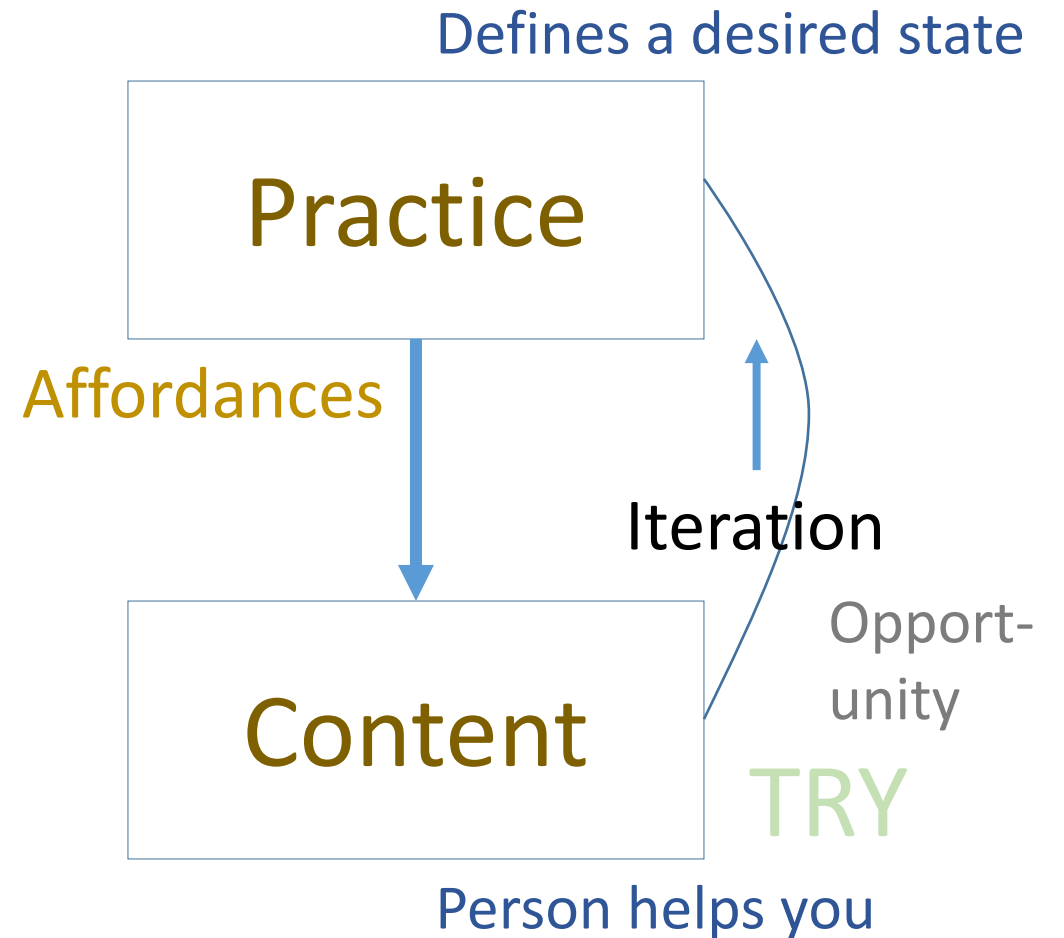
# Personalized

We do for you



# Personal

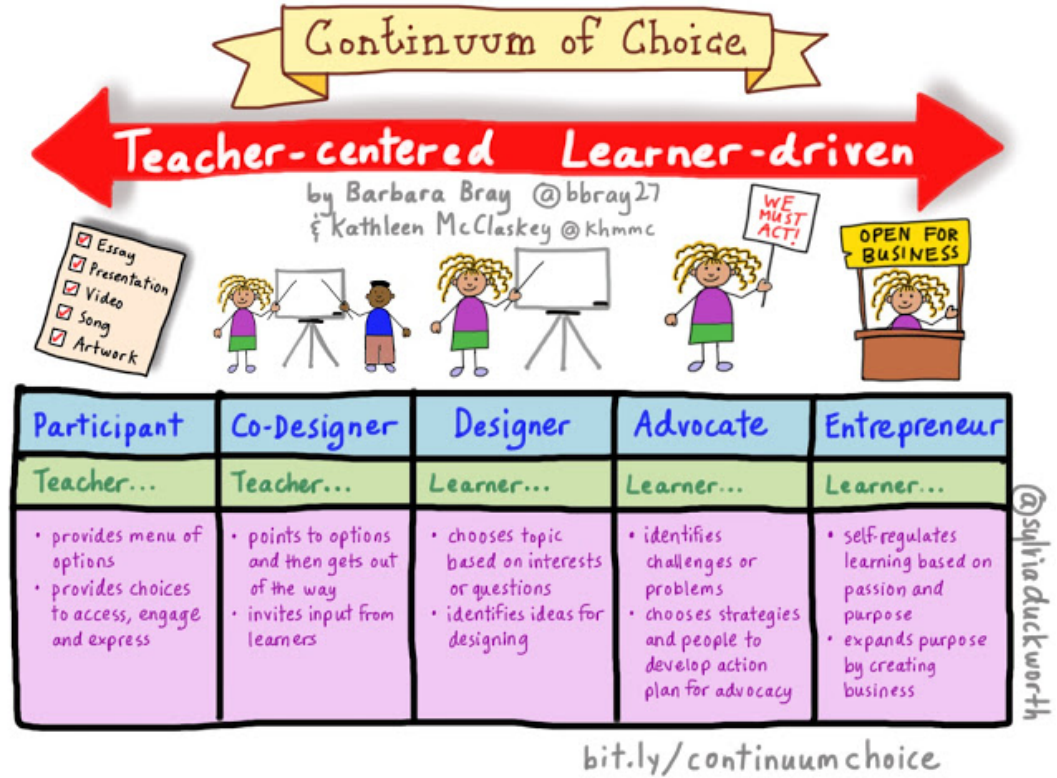
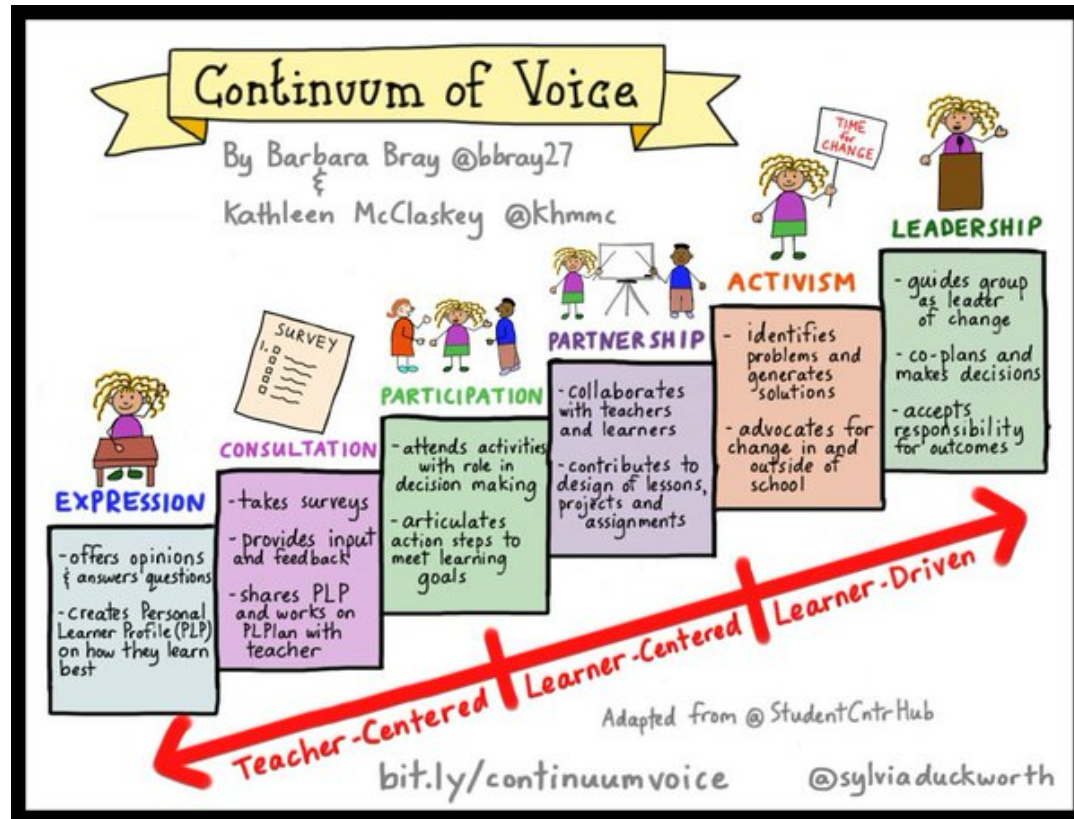
You do for yourself



# Personal vs. Personalized

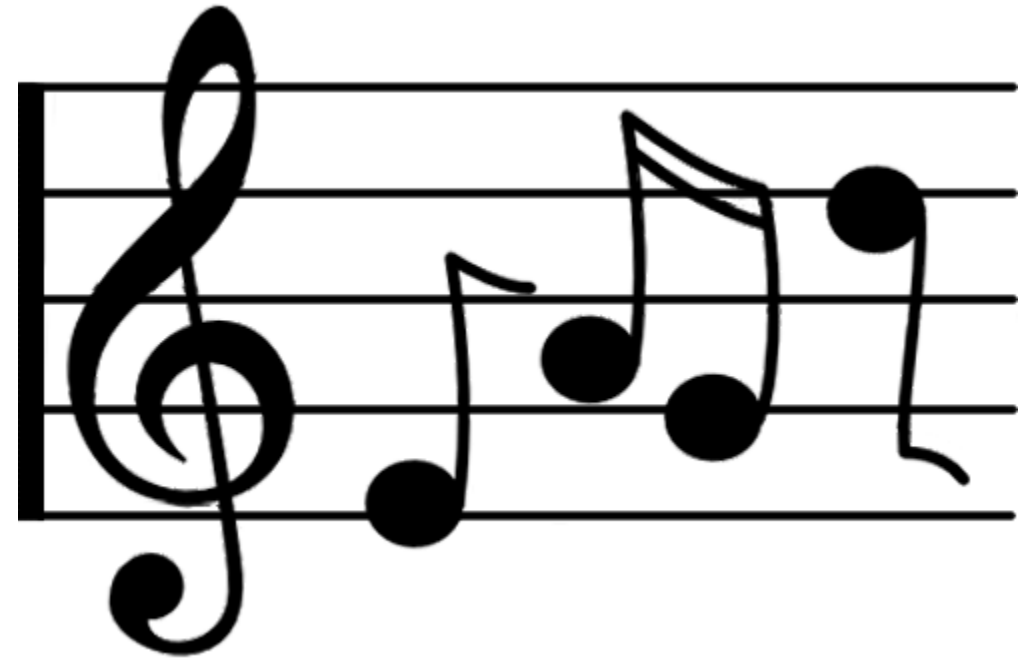
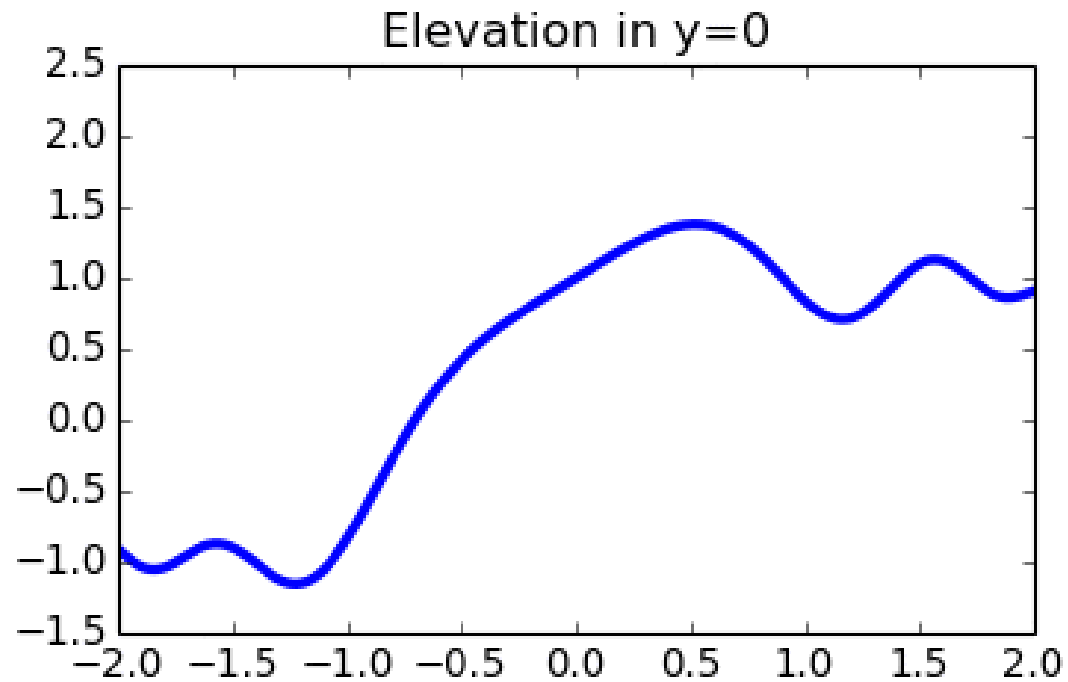
- Compare between:
  - Personalized health care (something the National Health Service or Health Management Organization provides)
  - Personal health care (something you do for yourself)
- Personal goals versus institutional goals
- Practice versus content

# Voice and Choice



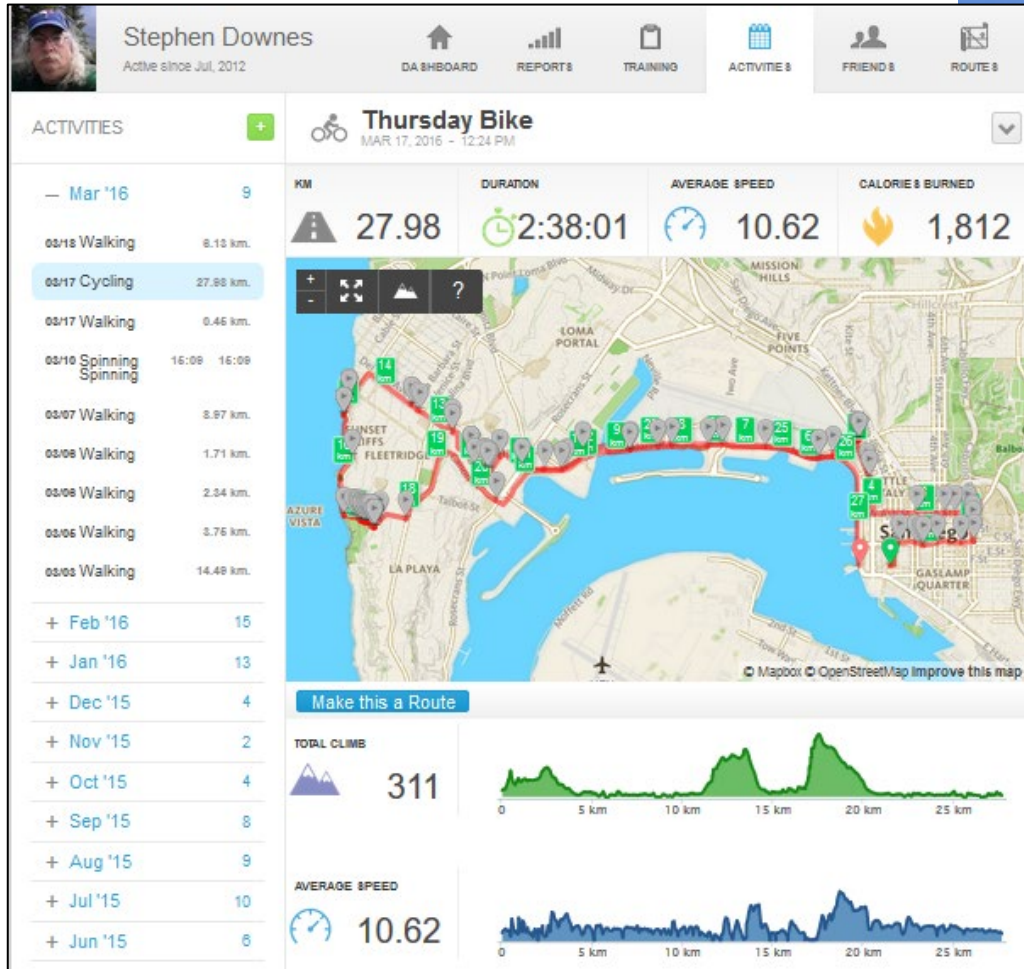
Barbara Bray and Kathleen McClaskey  
Shared by Denisha Read

### 3. Learning Through Practice

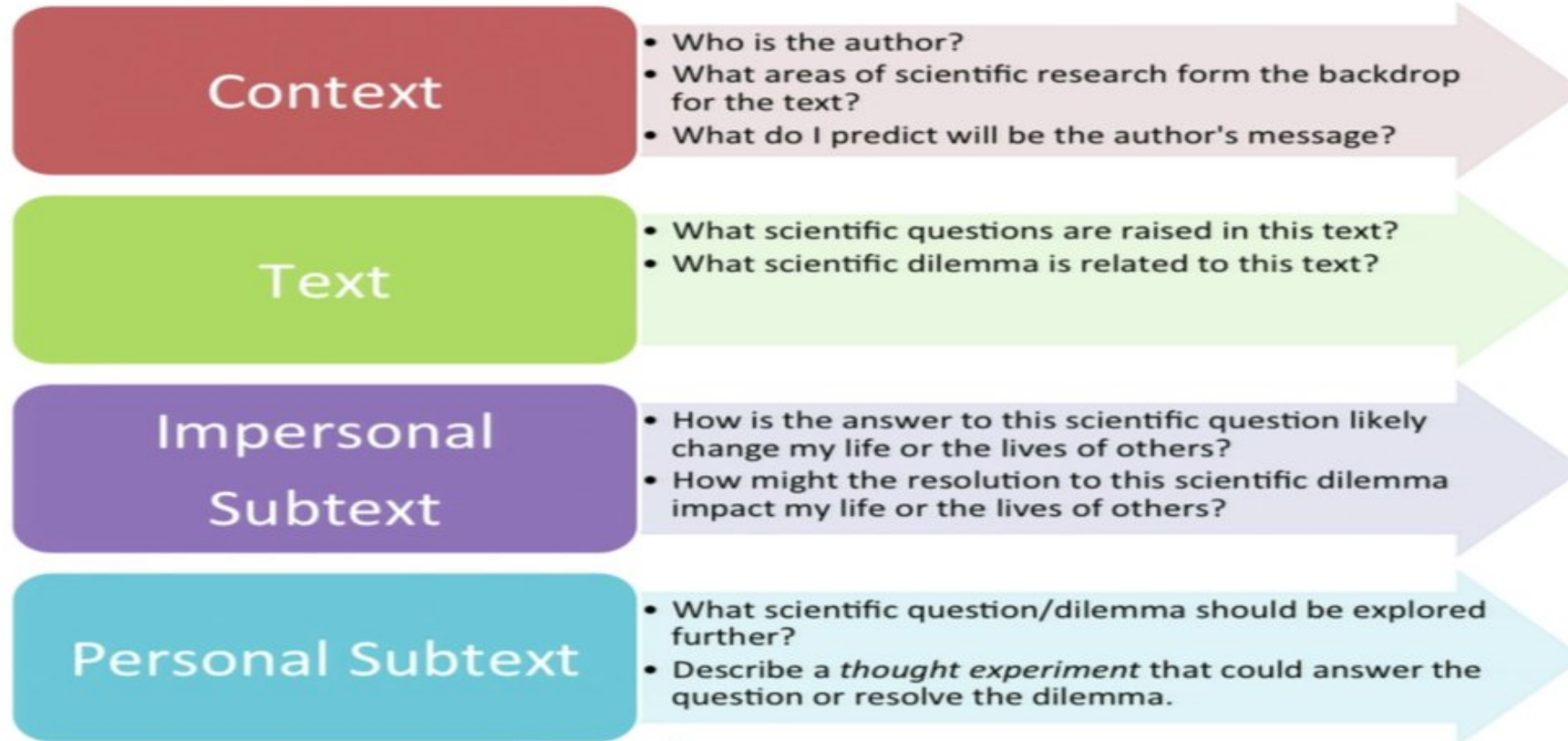




# Exploring, not Following



# Reading Like a Scientist



# The Hackathon...



<http://www.hackathon.io/events>

# The EduCamp



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



<http://www.flickrriver.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

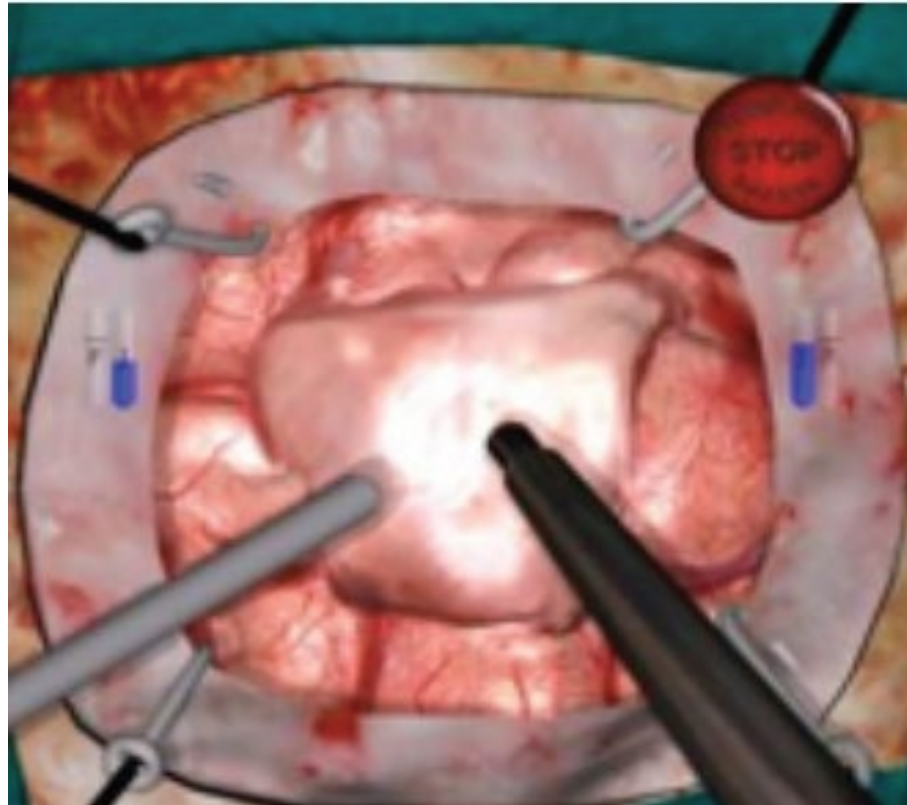


<http://www.cae.com/World-s-first-AW189-full-flight-simulator-ready-for-training/>



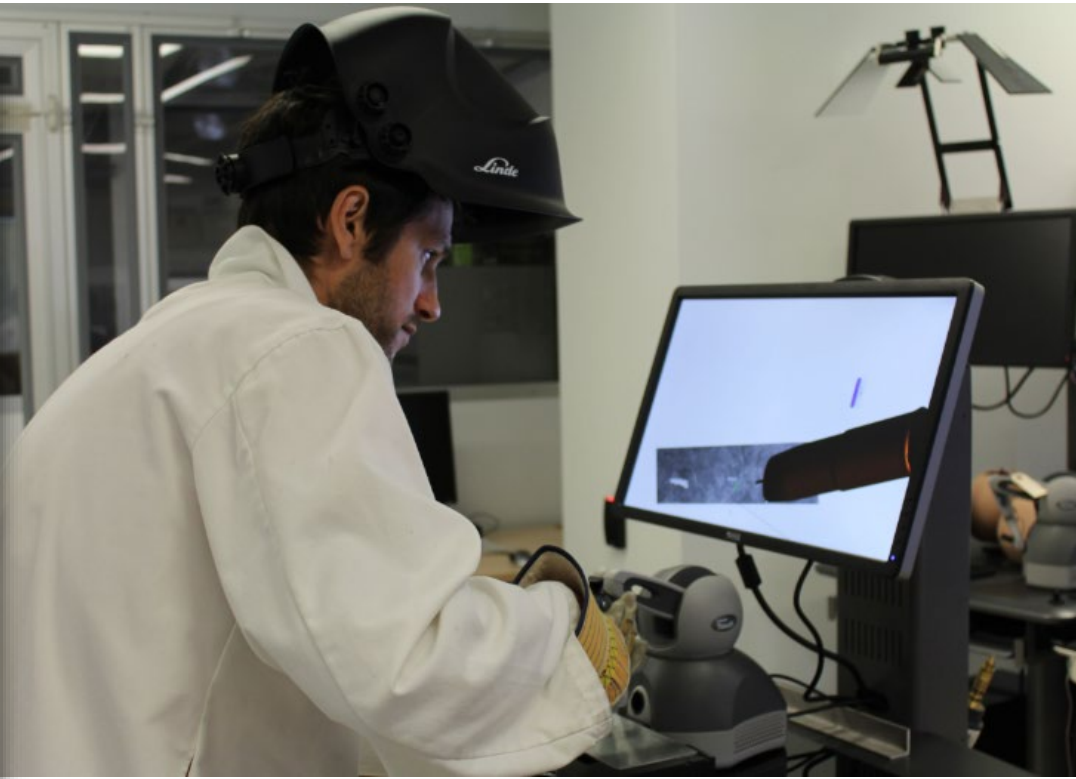
<http://www.aiac.ca/canada-aerospace-industry/success-stories/cae-nh90-helicopter-simulator/>

# NeuroTouch Simulator





# Sim-Welding



# Auscultation



<http://www.cardionics.com>

## 4. Learning Communities - the cMOOC



# xLearning vs cLearning



contents

engagement

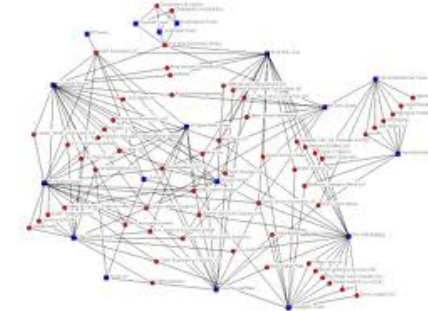
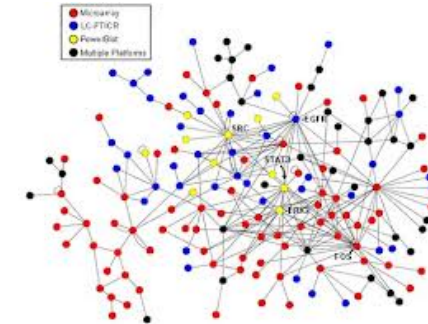
networks



<http://www.corestandards.org/>

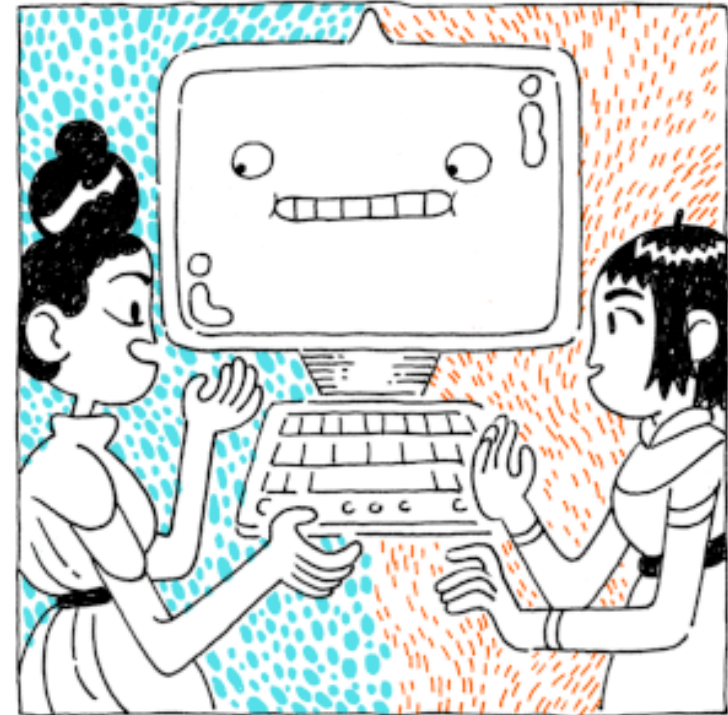
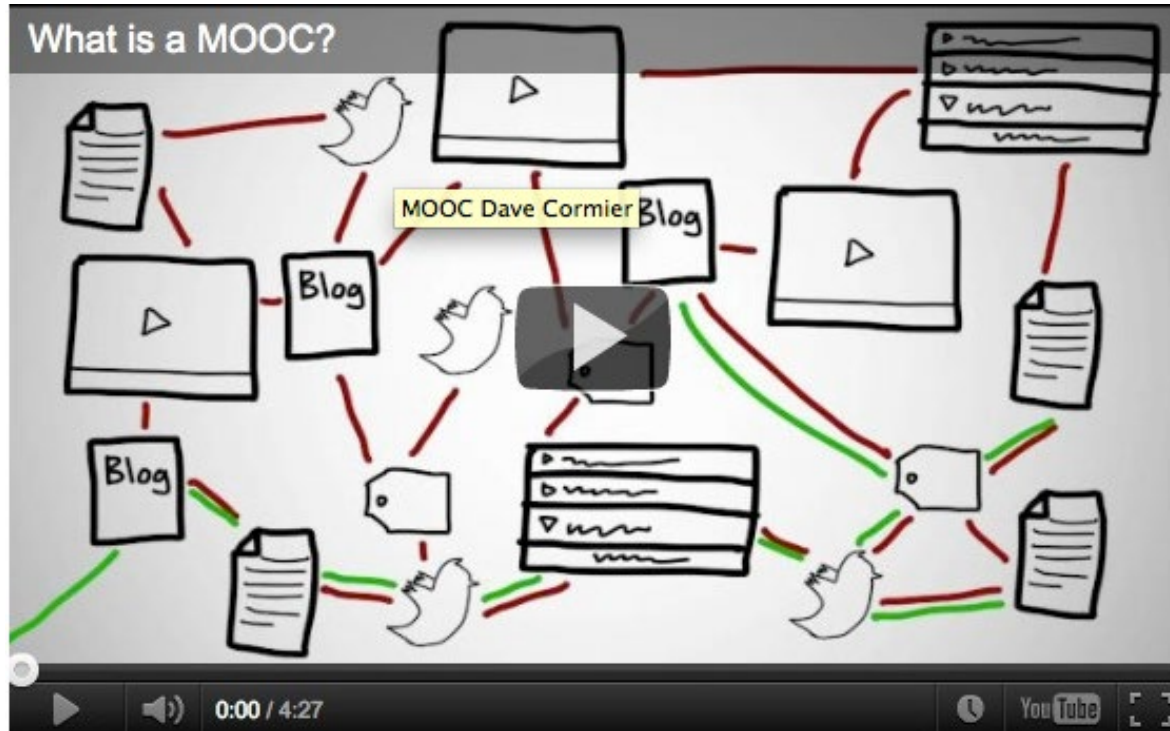


<http://www.magnet.edu/>



<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

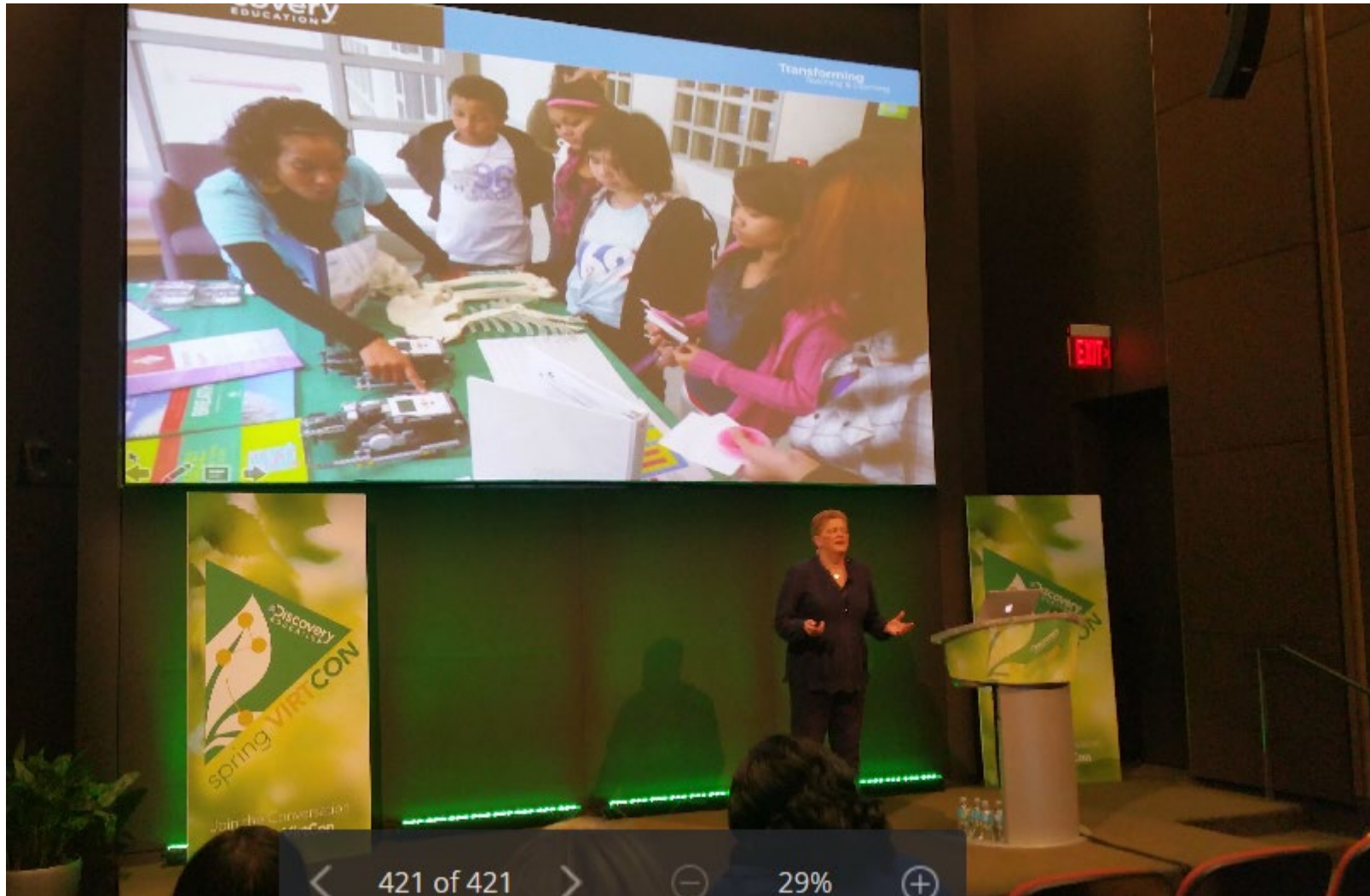
- Course structure – a series of topics
  - The instructors will not ‘teach’ the topics, they ‘investigate’ or ‘work through’ the topics (model and demonstrate)



# A Focus on Exploration



# Cindy Moss: STEM is a Culture





# Learning is a form of recognition



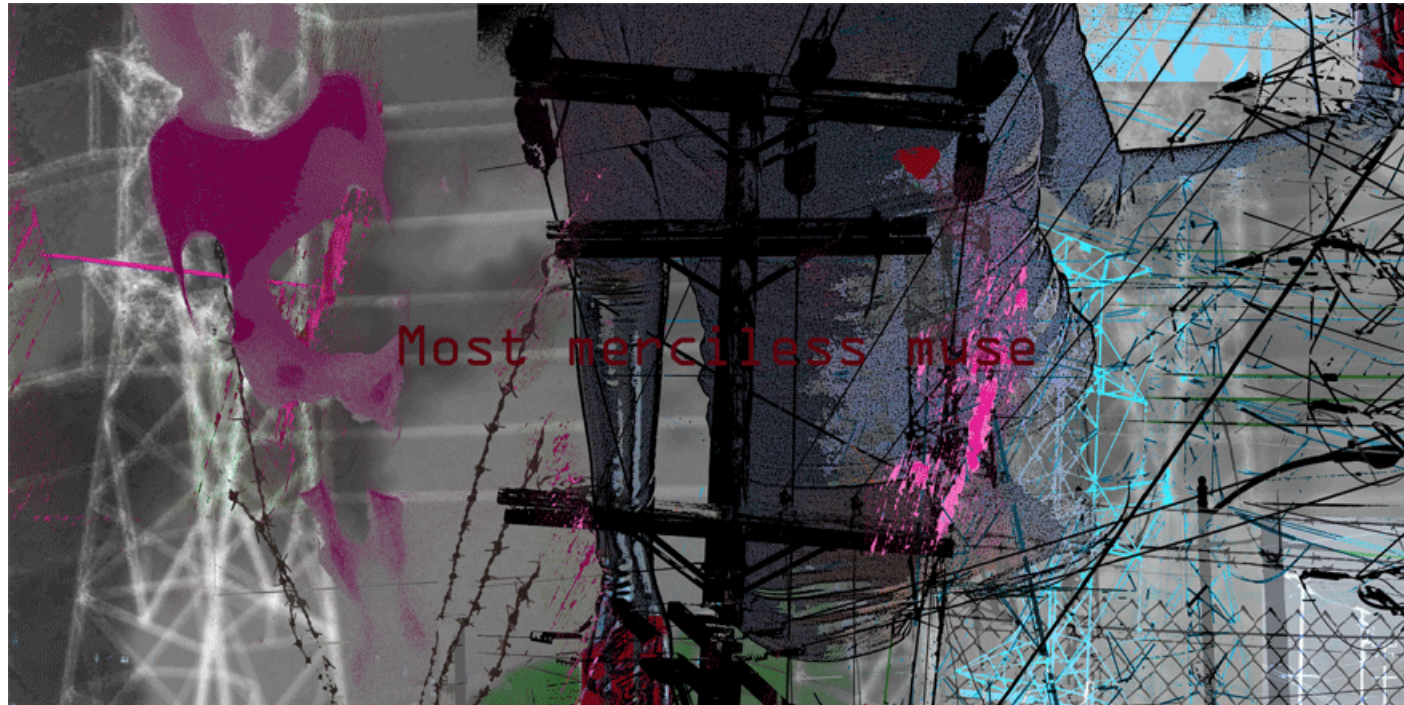
- It's what we do naturally, as humans, from the day we are born
- And it's something that grows and evolves into a complex set of basic literacies, including pattern recognition, critical thinking, action and behaviour, awareness of context, inference and imagination, and change (the 'critical literacies')

<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.

# Aggregation



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

# Remixing



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

# Adaptation



Learning is not simply a process of reception and filtering.

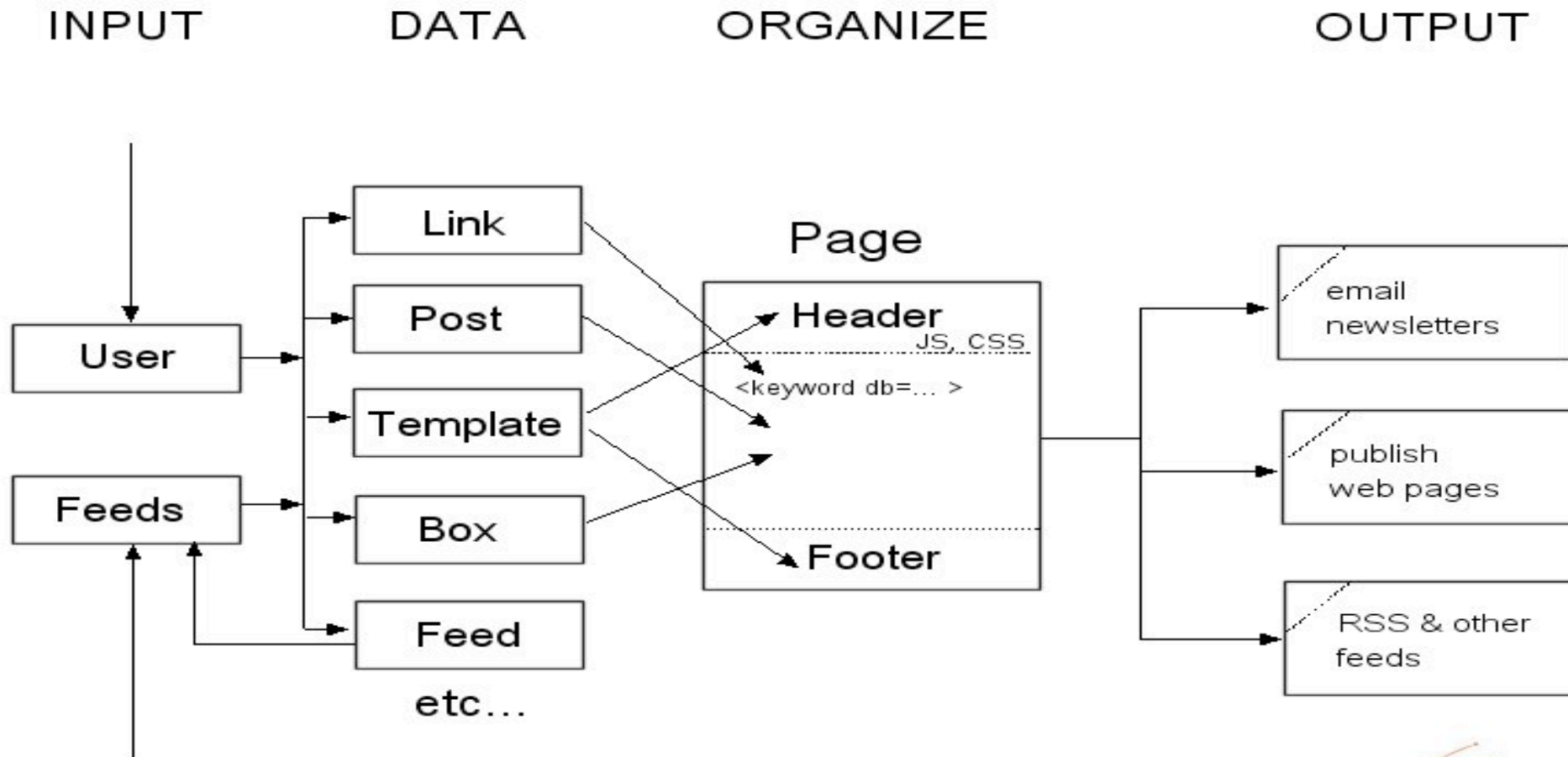


Feeding  
Forward

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

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

# gRSShopper



# 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

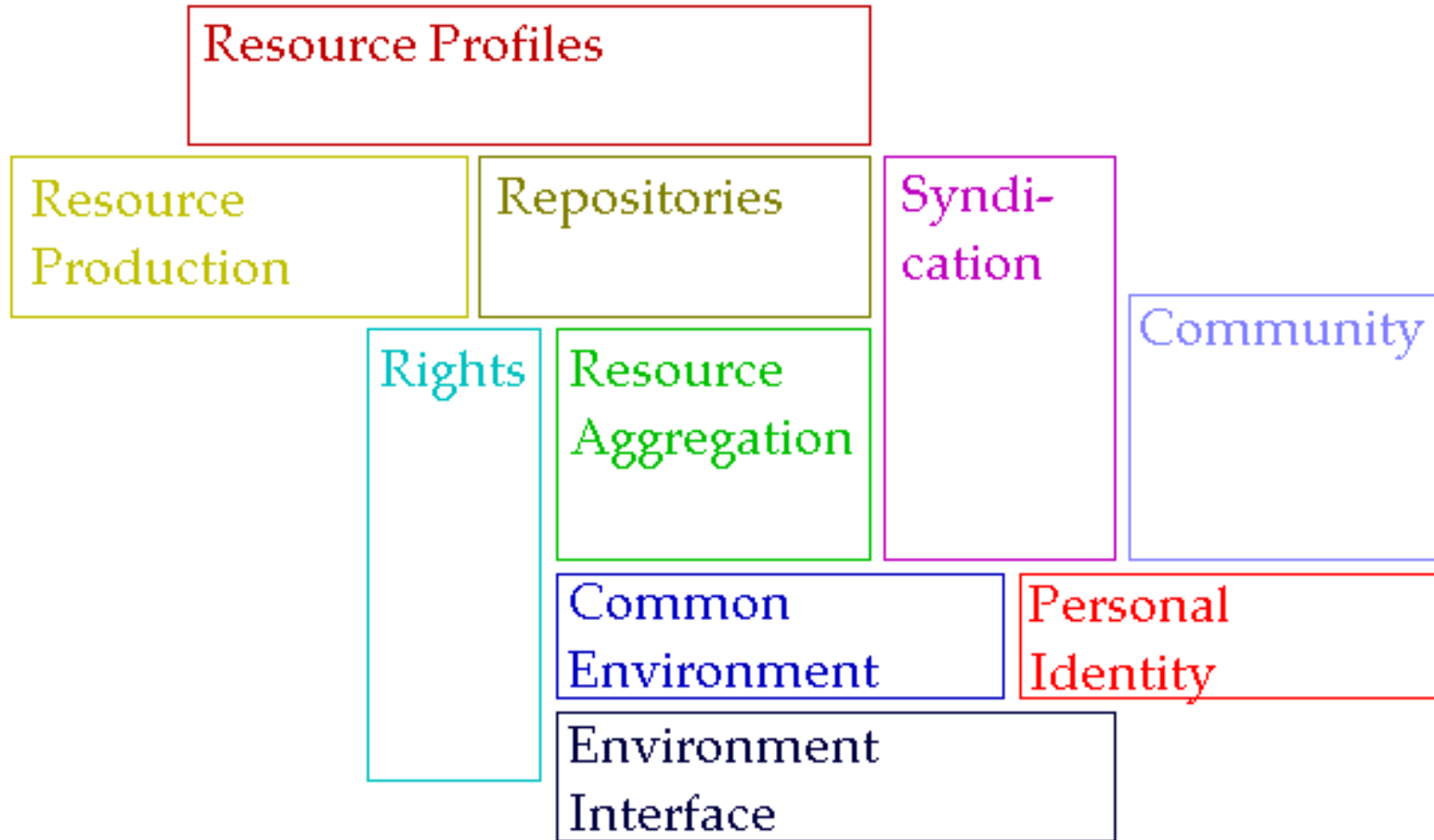
The image displays a web-based simulation learning interface. On the left is a dark sidebar menu titled "Simulation Learning Space" with a list of categories: Instrument Handling, Suction, Ultrasonic Aspirator, Ultrasonic Aspirator 102, Bipolar, Microscissors, Fundamental Skills, and Spine Surgery. Each item has a plus or minus icon. A grey arrow points from the "Suction" item in the sidebar to the main content area. The main content area is a light grey dashboard with a top navigation bar. The dashboard is divided into three sections: "Scenarios' History", "Recommendations", and a central performance table. The "Scenarios' History" section shows details for "Exercise: Suction 101" and includes a "Image Not Found" placeholder and an "Overall Score History" line graph. The "Recommendations" section shows a preview of a simulation interface. The central performance table lists metrics for a simulation attempt.

Metrics	Value	Grade
Blood remaining	0.14 cc	0%
Tissue removed	0.0 cc	0%
Time LH excessive force	0.0 s	0%
Time RH excessive force	4.02 s	50%

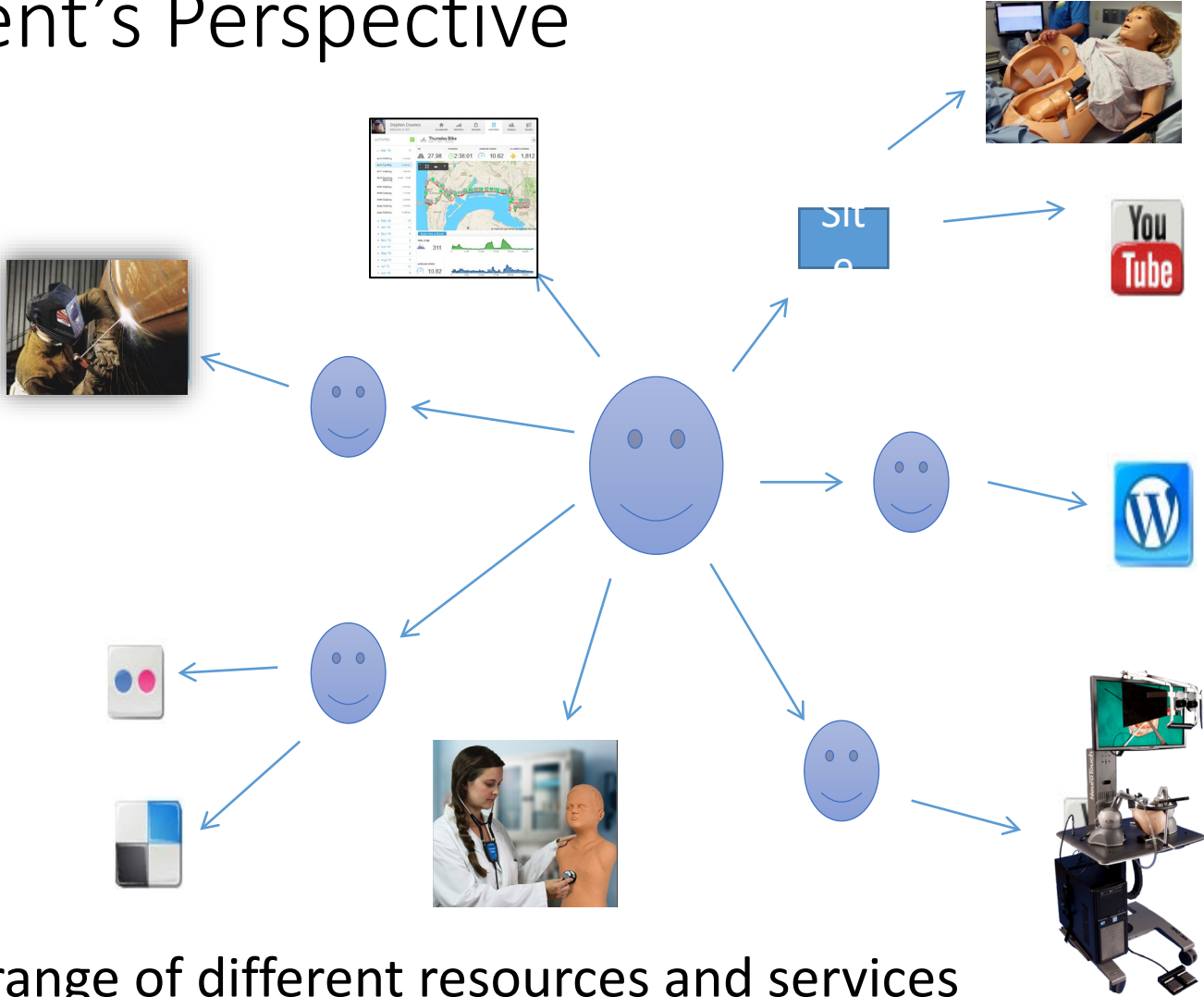
**Overall Score: -50/100**

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

# A Personal Learning Architecture



# The Student's Perspective



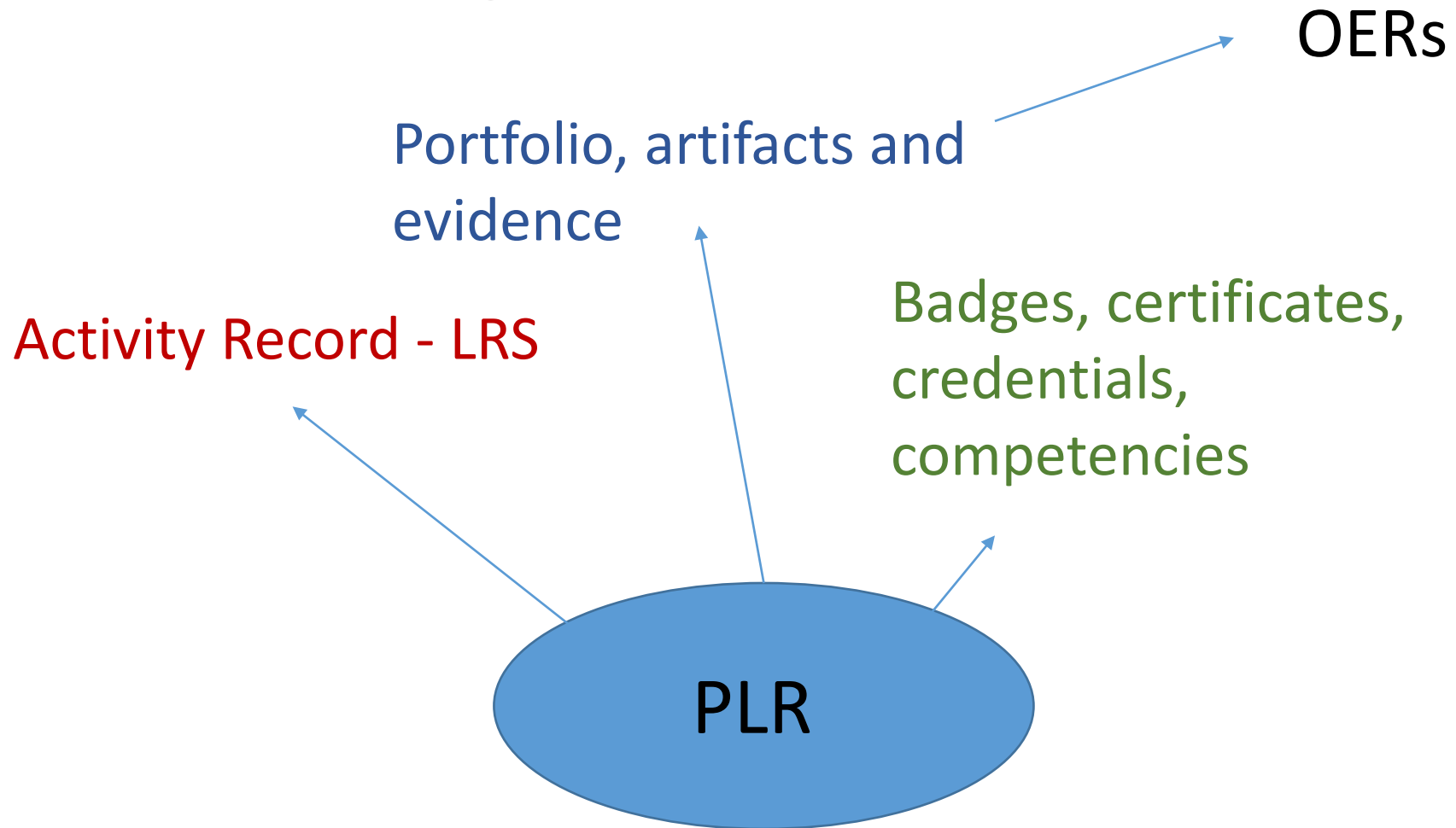
A range of different resources and services

# Personal Learning Record

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



# 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.



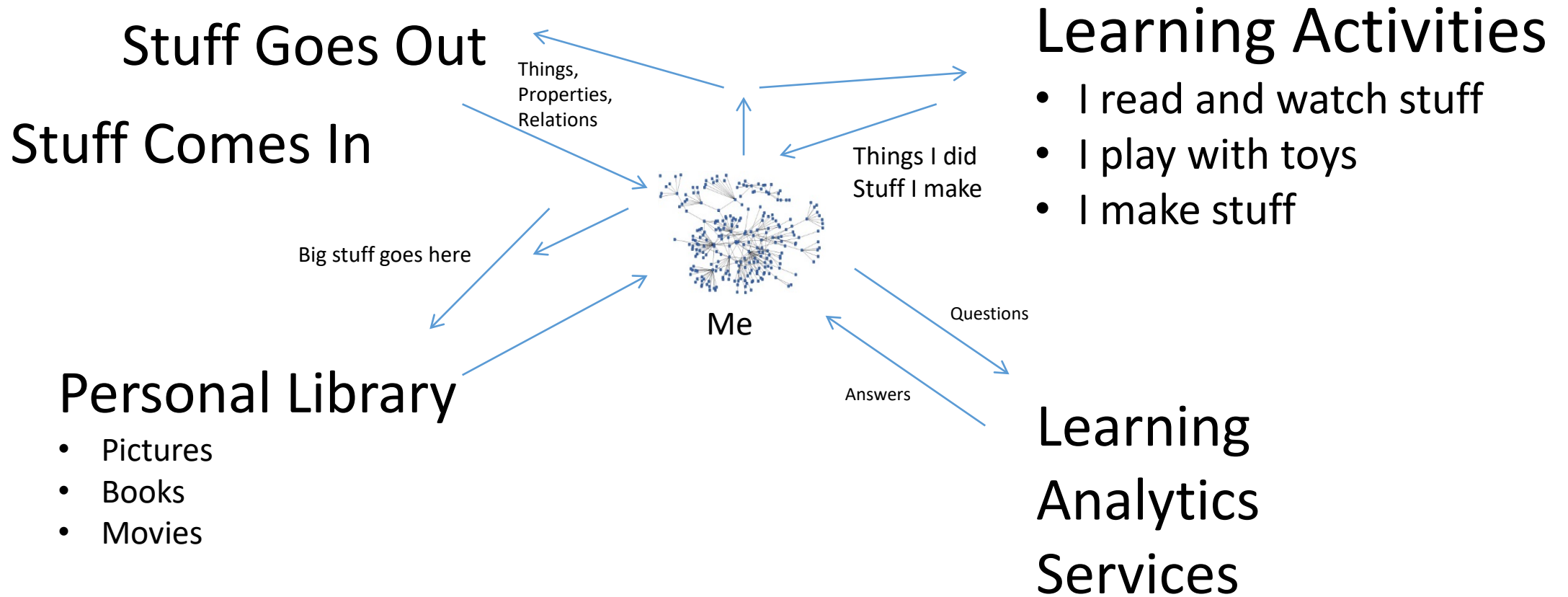
Me

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

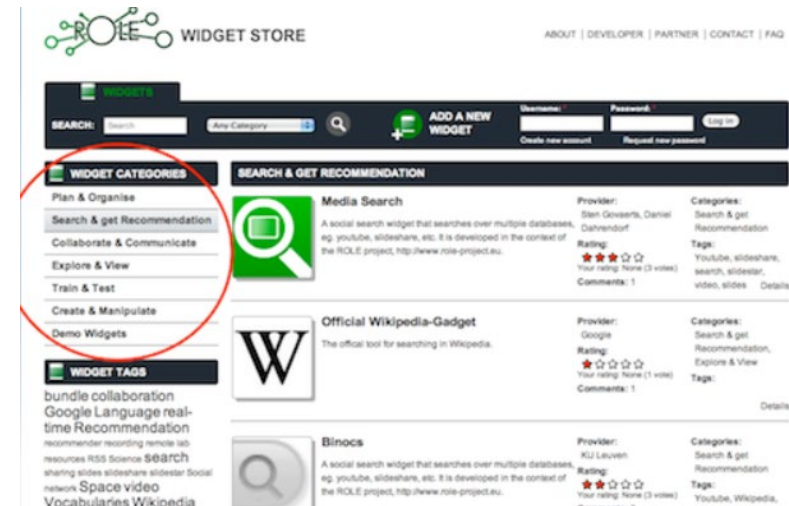
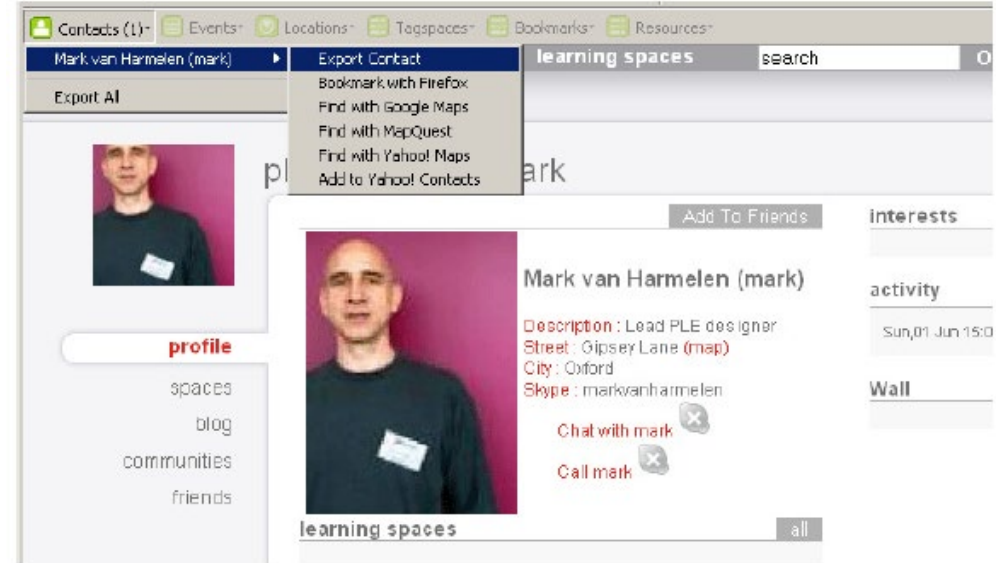


# Everything is Built Around the Personal Learning Record

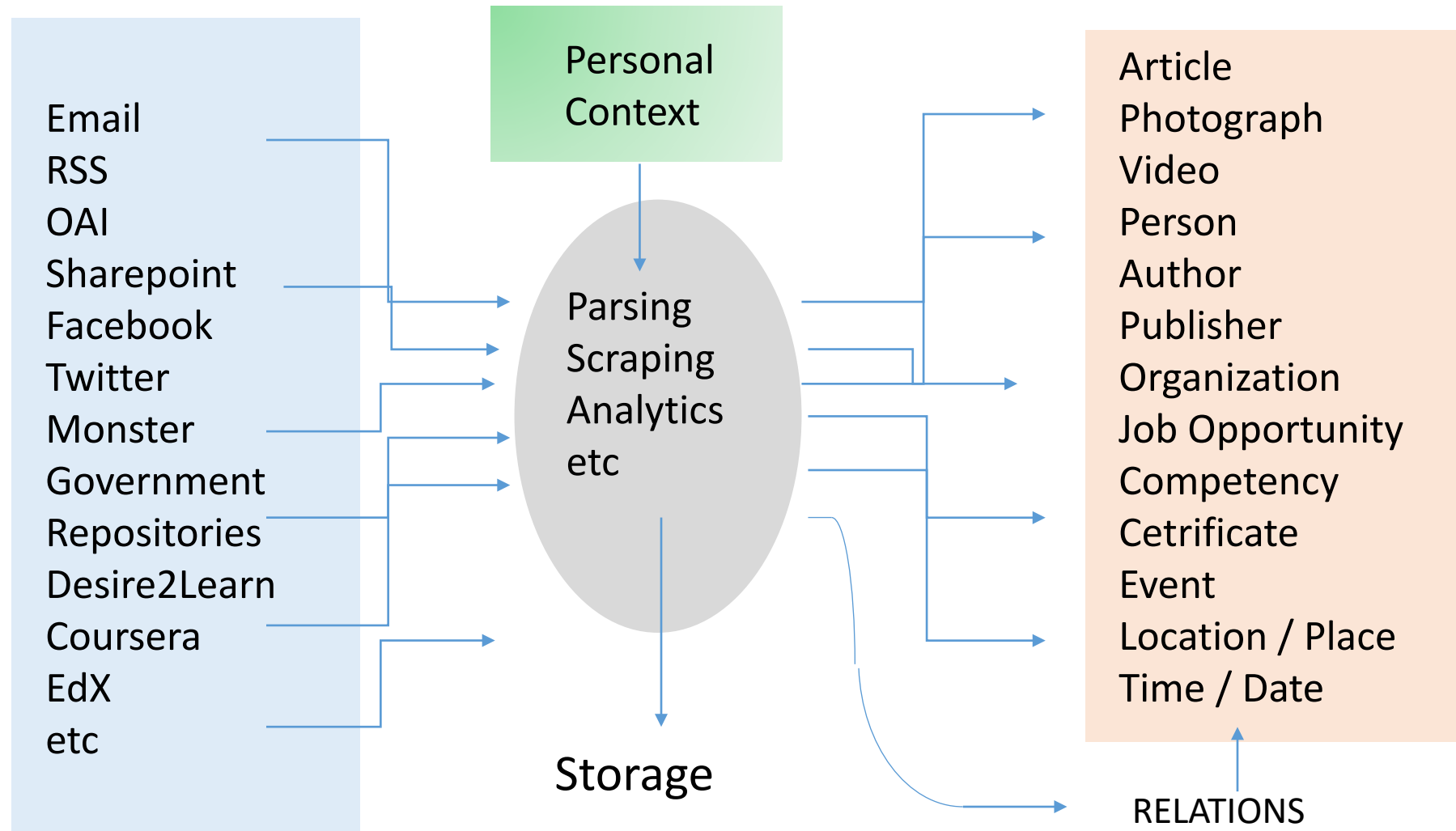


# Relevant PLR Projects

- 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](https://padlet.com/) for easy reading and following of conversation [#SpringVirtCon](https://twitter.com/hashtag/SpringVirtCon)



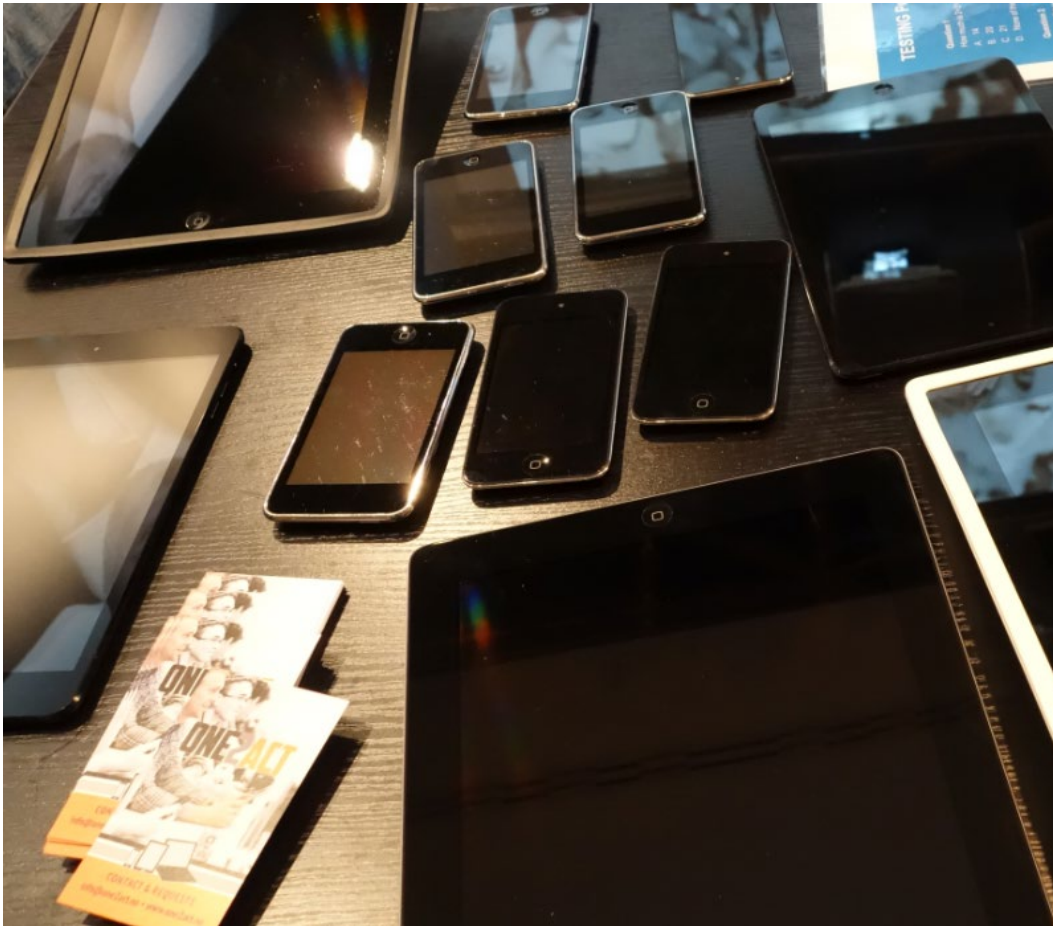
**Padlet is the easiest way to create and collaborate in the world**

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

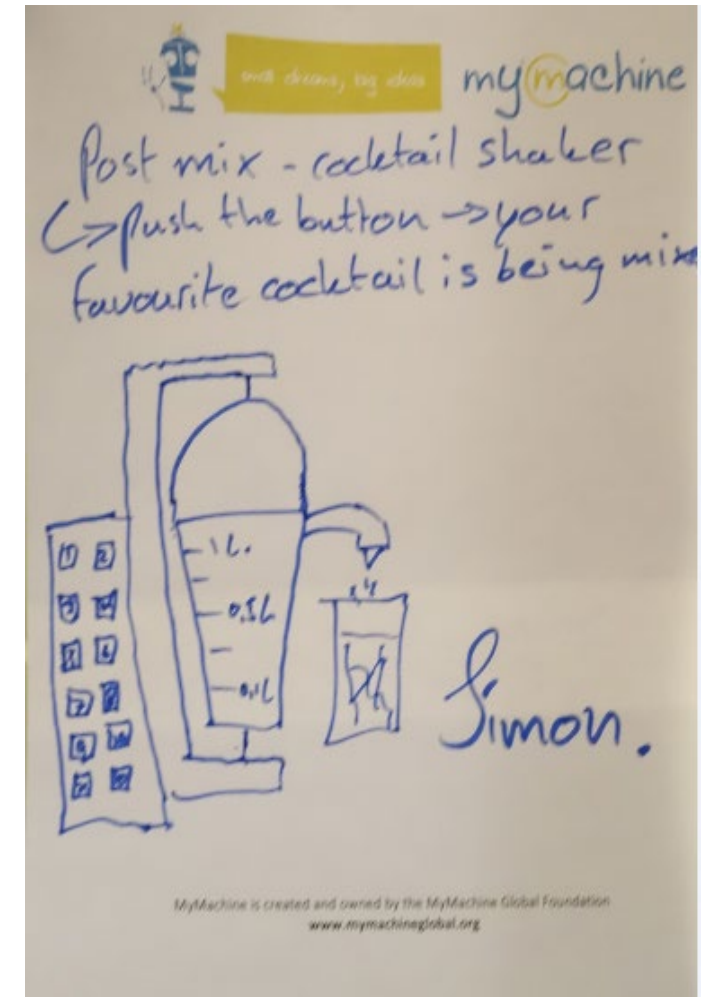


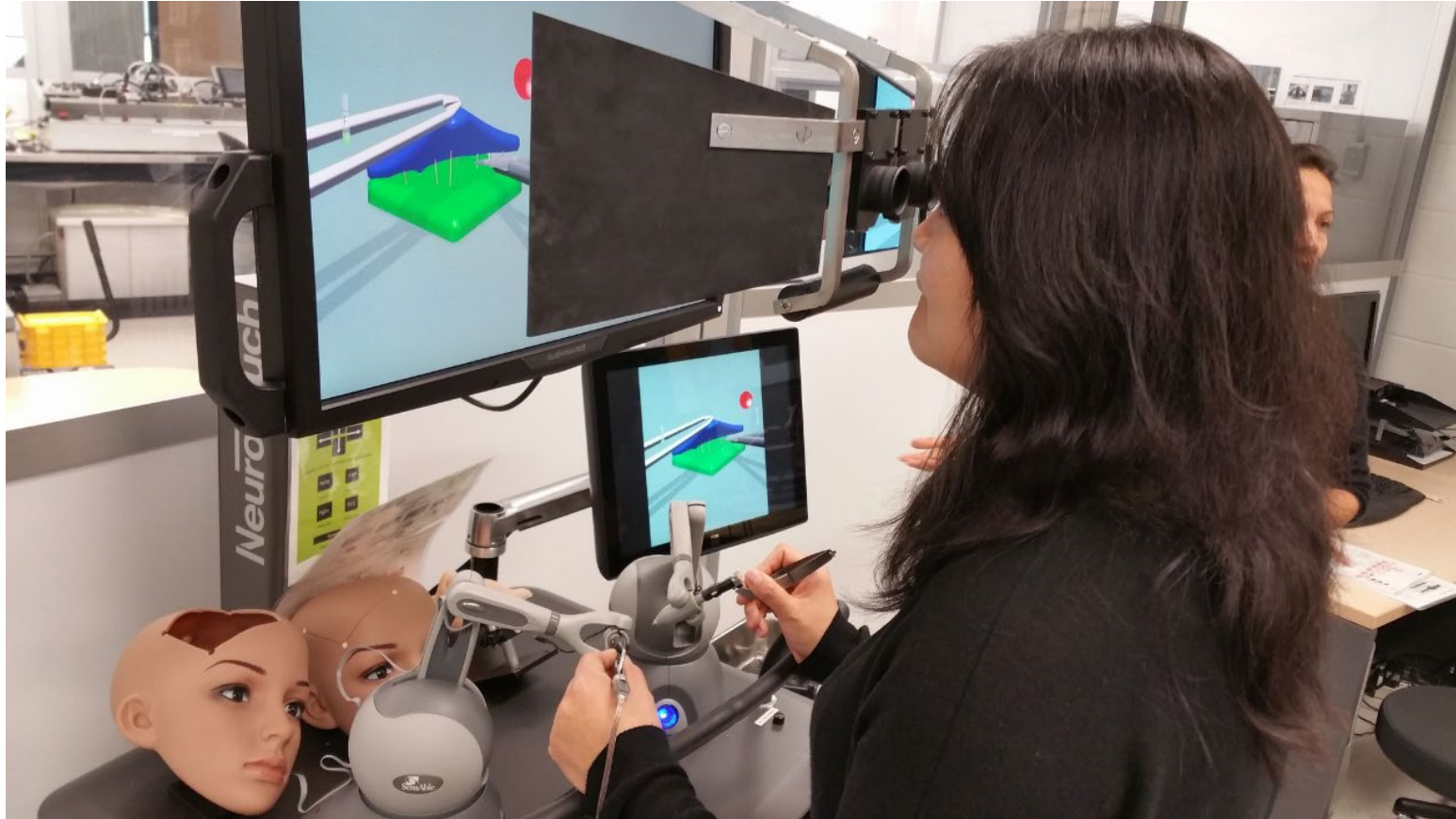
Synchronized cloud data services  
(including Owncloud) to support  
data portability



# 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/>





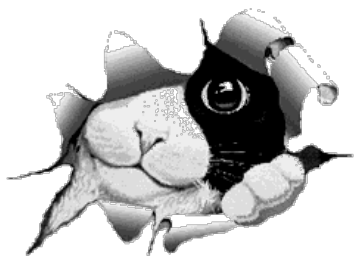
What's Next?

# Speaking in Lolcats: What Literacy Means in teh Digital Era



Stephen Downes  
November 12, 2009

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



# Create Animated GIFs

The Free and Easy Way

Select Your Method



<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