

From Individual to Community: The Learning Is in the Doing

Stephen Downes
March 19, 2016



**WORLD CONGRESS ON CONTINUING
PROFESSIONAL DEVELOPMENT**

Advancing Learning and Care
in the Health Professions

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worldcongresscpd.org

1. Learning is Personal



Alejandro Jadad, yesterday. Cover hummingbird photo: Nathan Rupert, <https://www.flickr.com/photos/nathaninsandiego/11106714545/>

Knowledge Translation

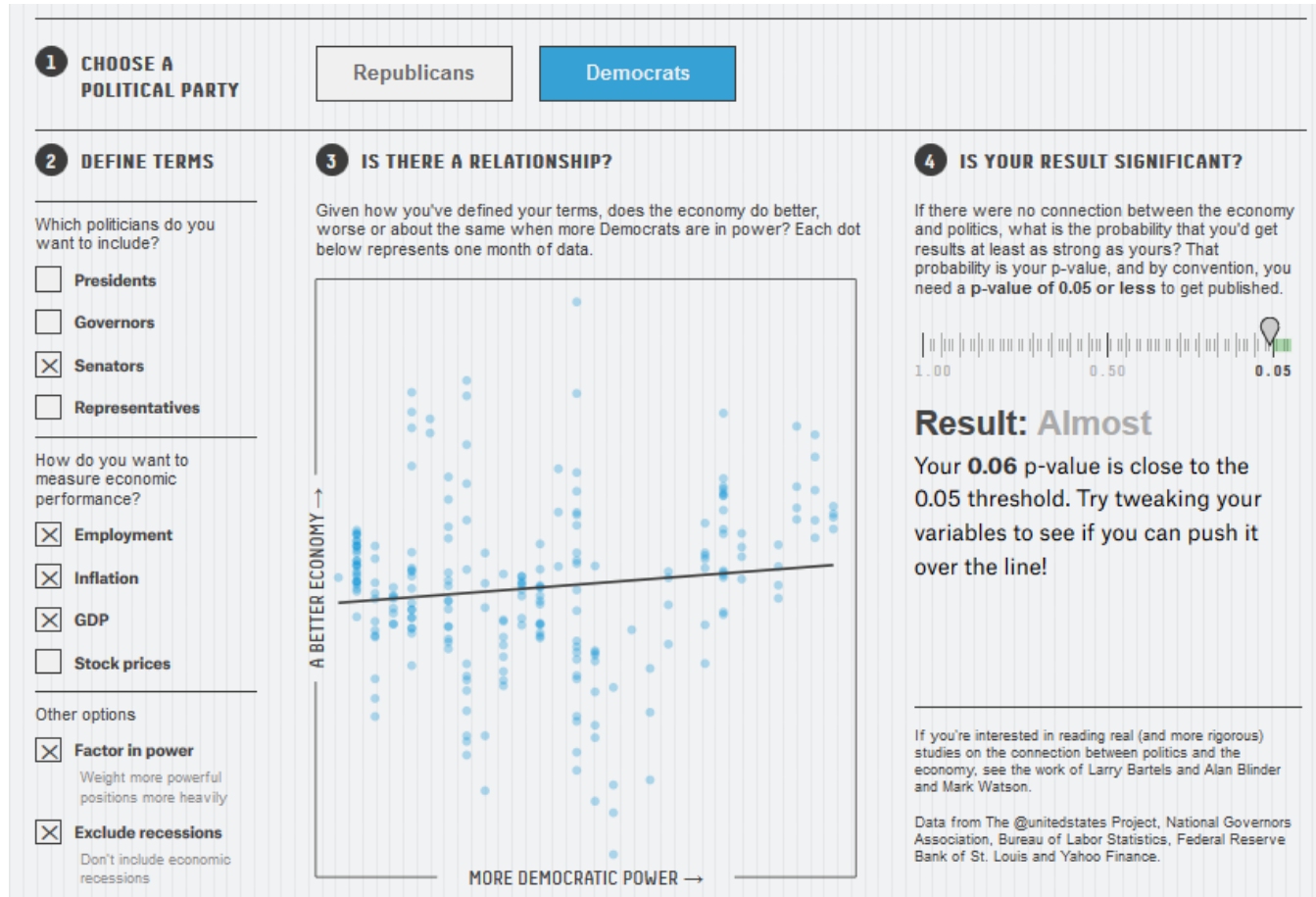
CIHR – “CIHR, **knowledge translation** (KT) is defined as a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically-sound application of **knowledge** to improve the health of Canadians.”

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.

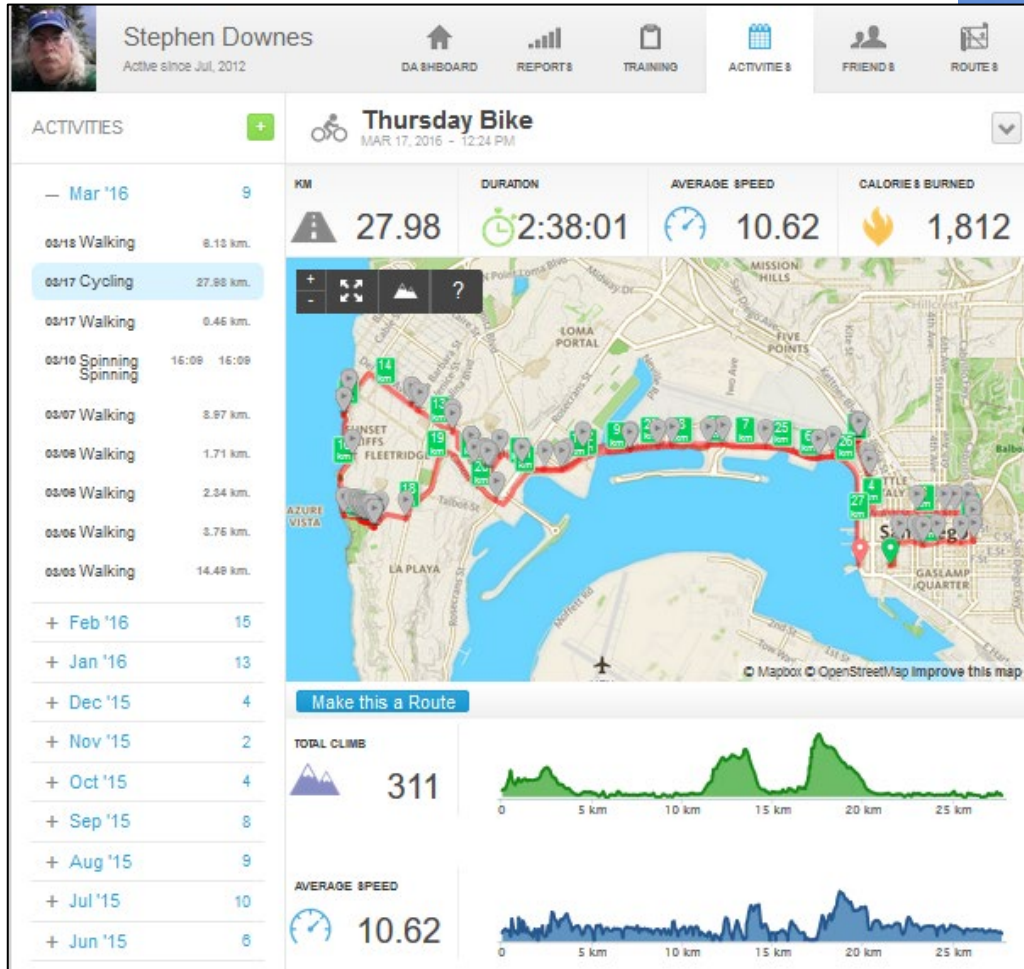
<http://www.downes.ca/post/65131>

<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**

Exploring, not Following



The Hackathon...



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

The EduCamp



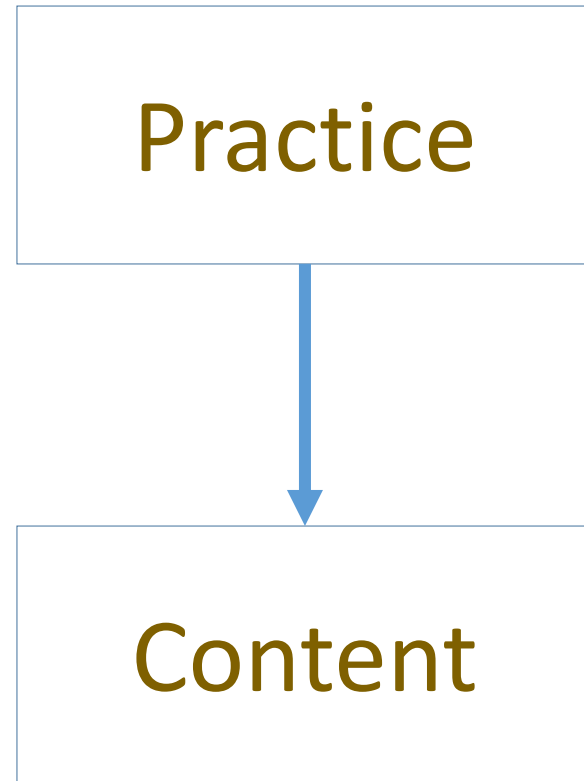
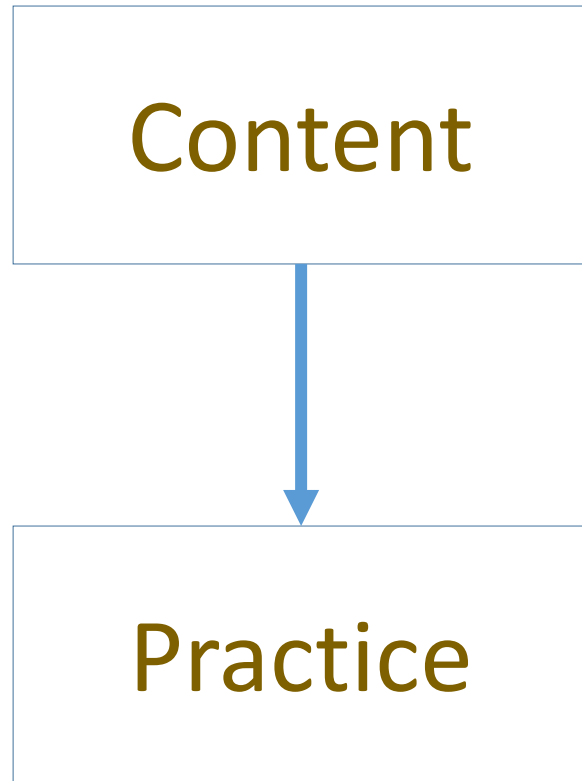
<http://pertinenciaeducativa09.blogspot.ca/2009/10/educamp-colombia-aprendizaje-en-un.html>



<http://www.flickrriver.com/photos/qadmon/3106848811/>

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

2. Two Approaches...



Two Approaches...

Defines an ideal state

Content



Practice

TEST

Person tests you

Defines a desired state

Practice

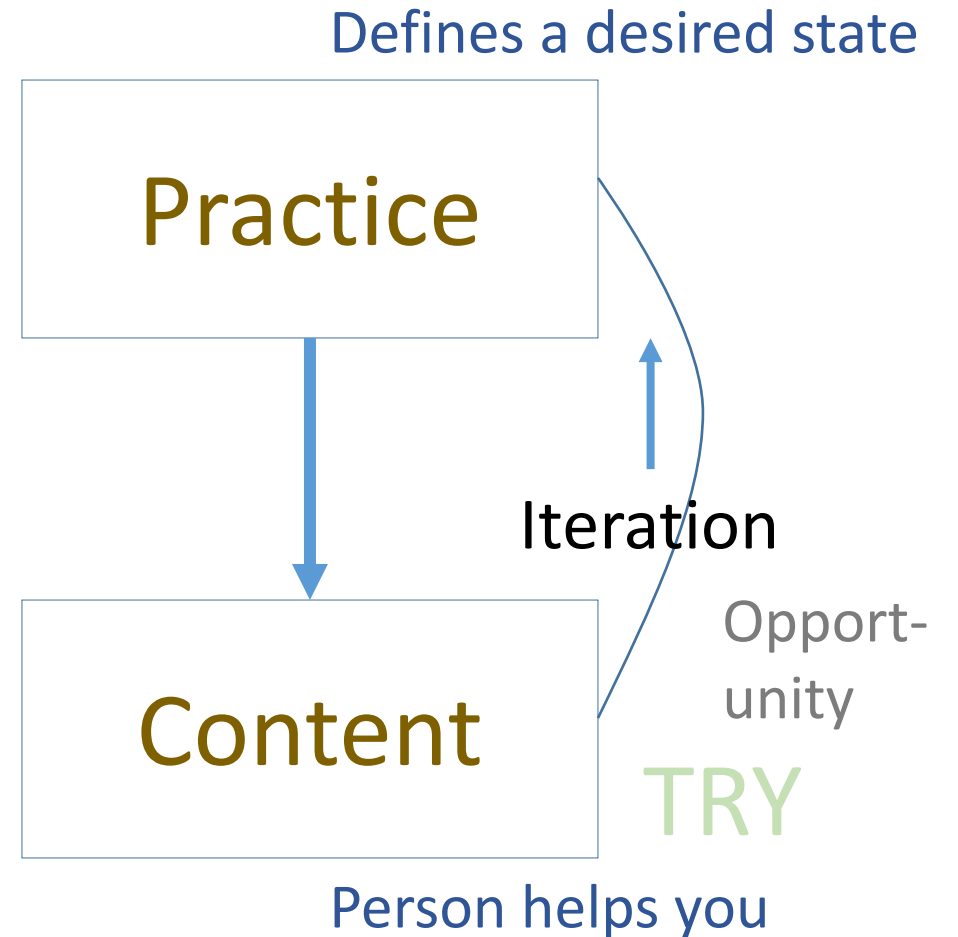
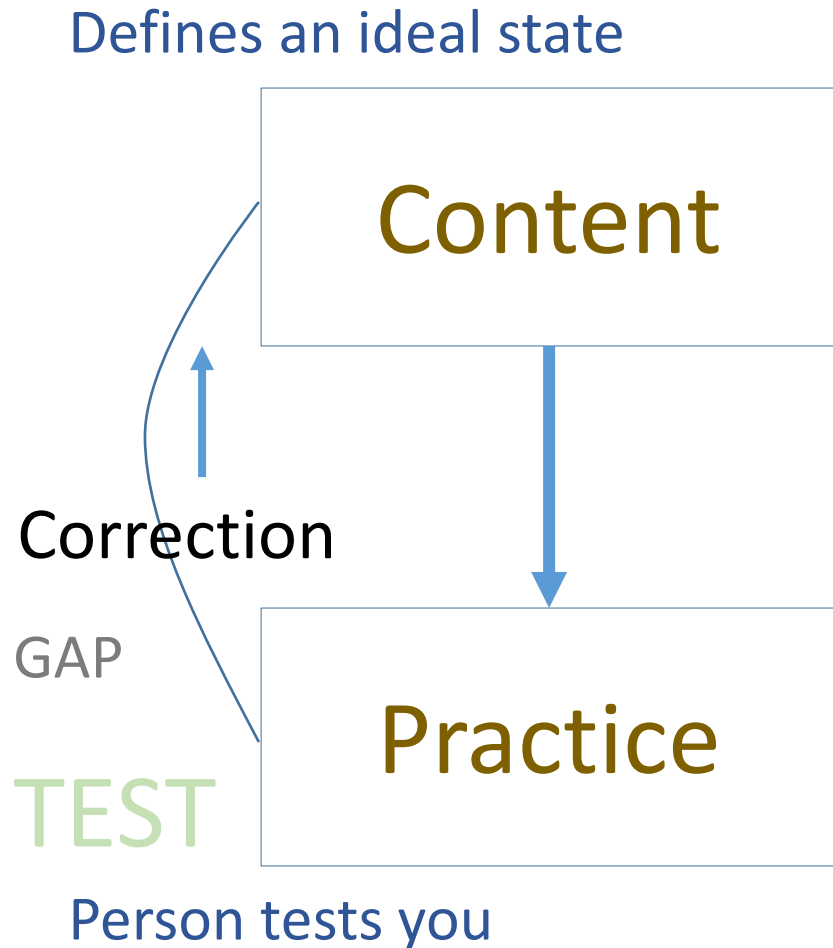


Content

TRY

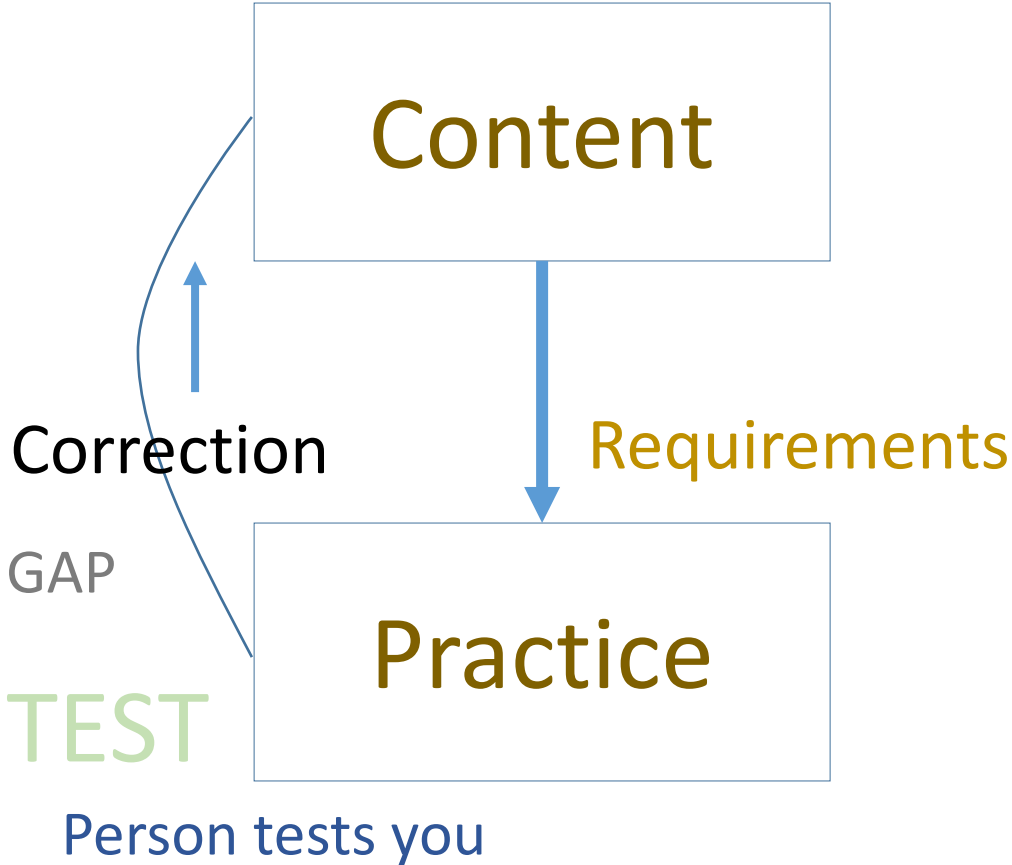
Person helps you

Two Approaches...



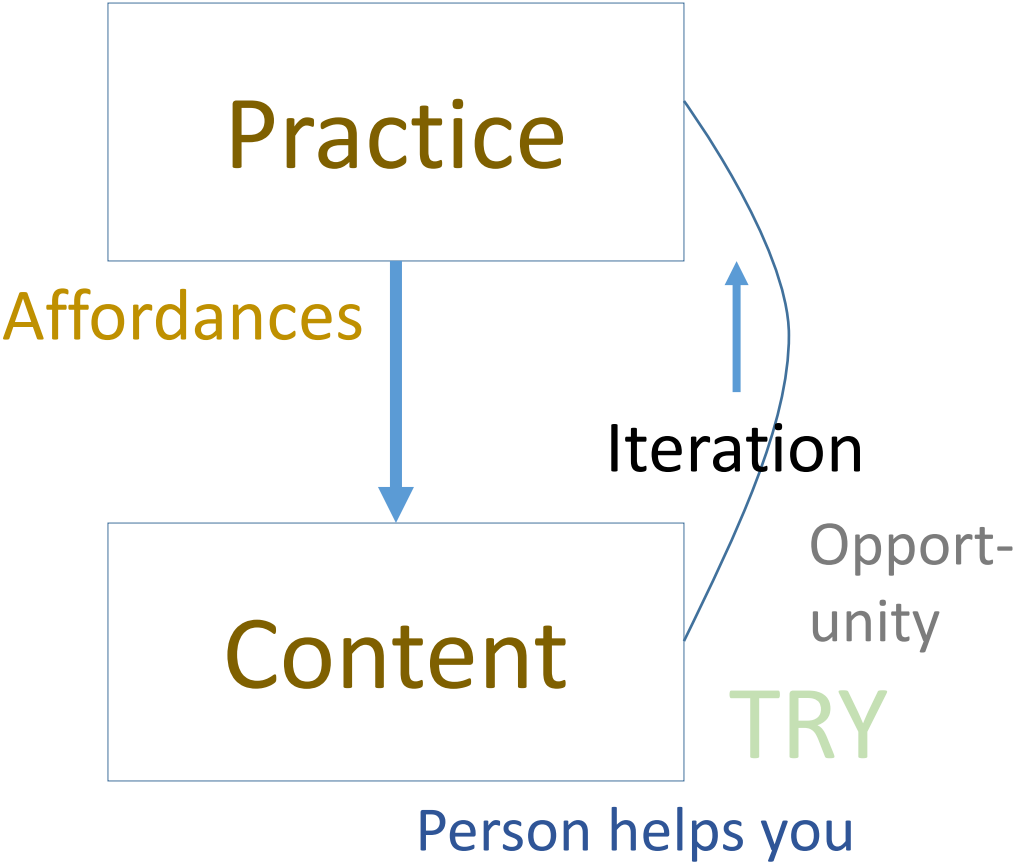
Library

Defines an ideal state



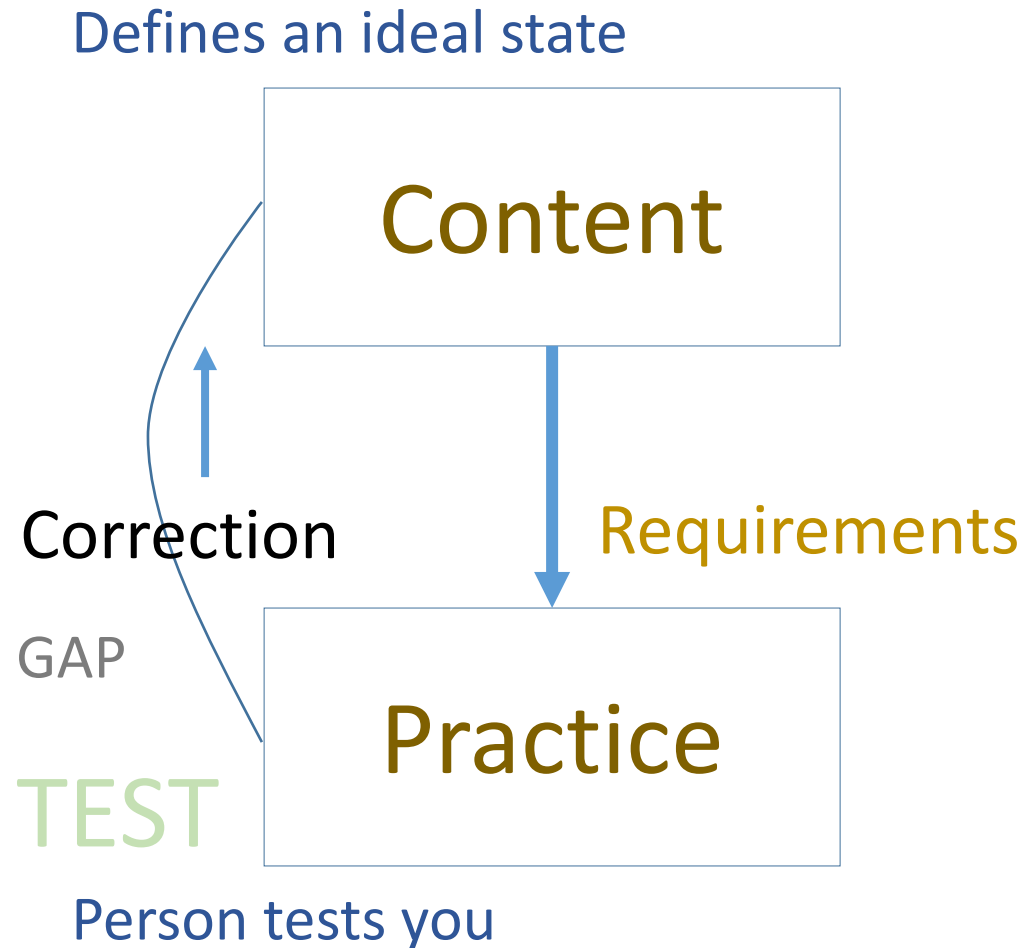
Environment

Defines a desired state



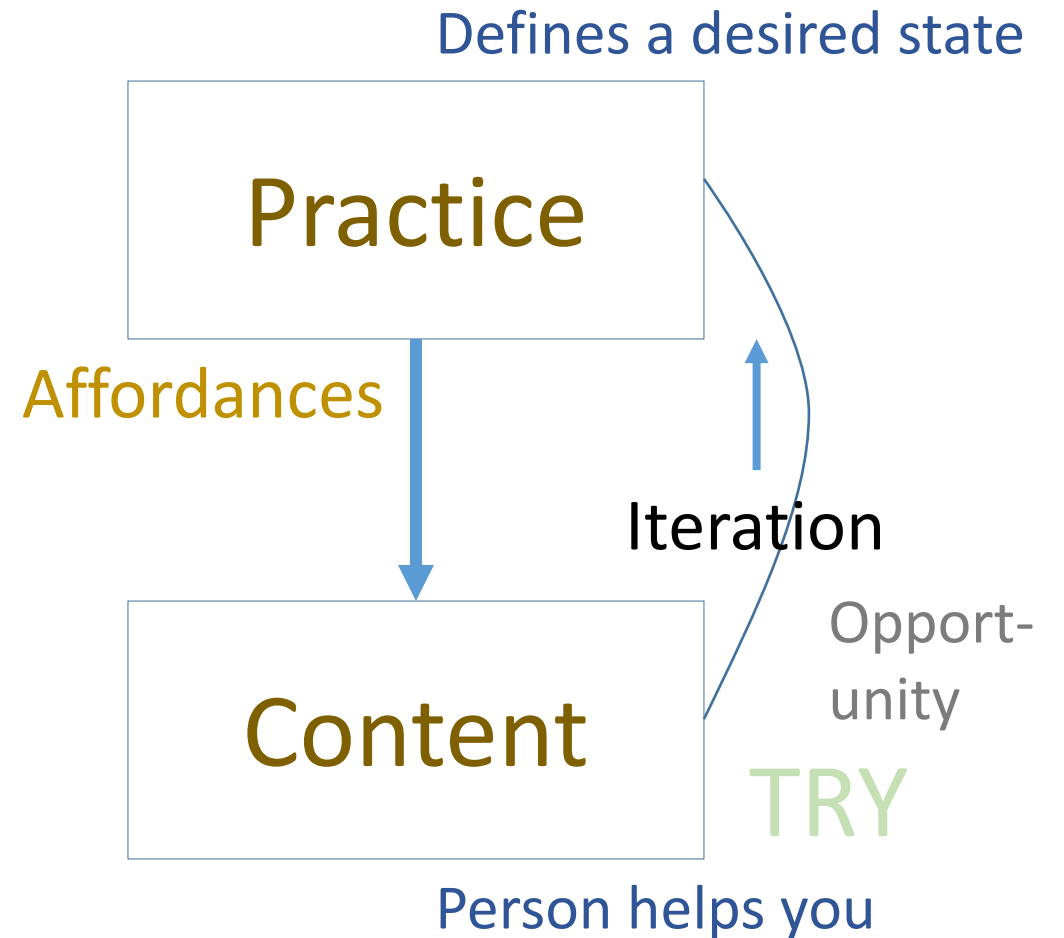
Personalized

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

3. Learning Through Practice



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/>



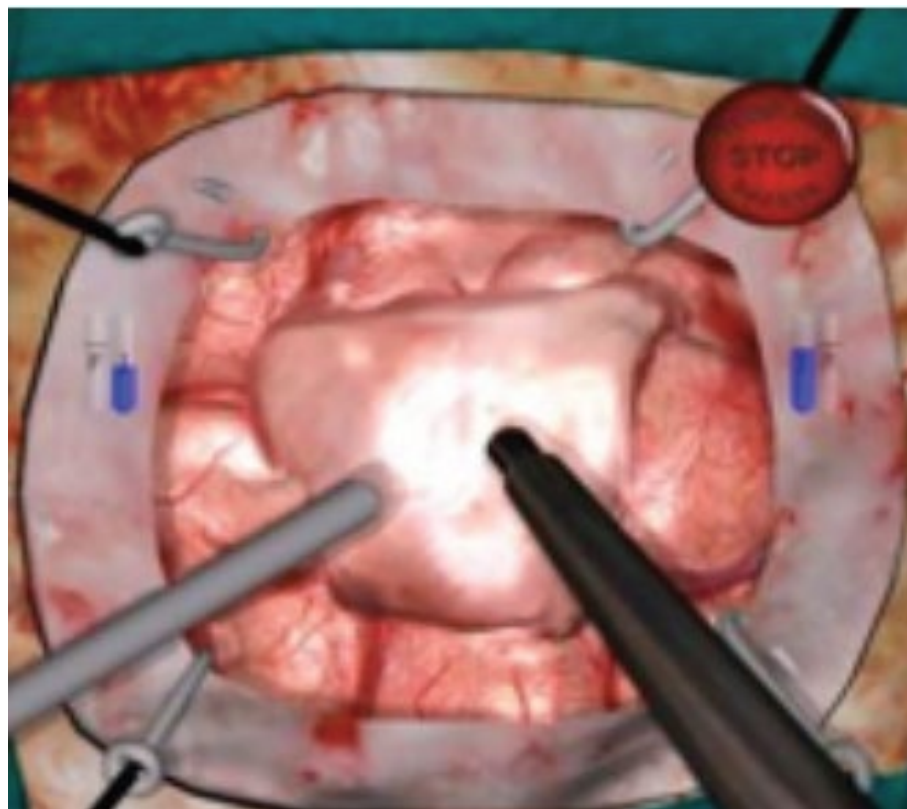
<http://www.aiac.ca/canada-aerospace-industry/success-stories/cae-nh90-helicopter-simulator/>

MINT - Mobile INteractive Trainer

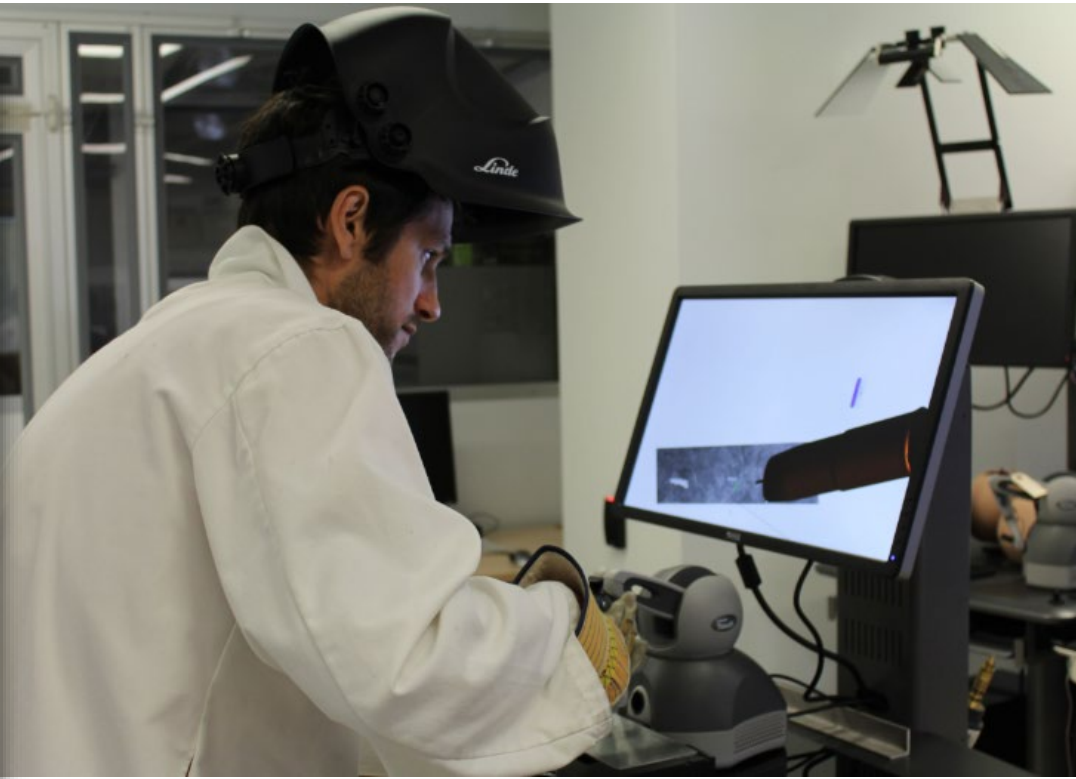


<http://www.downes.ca/post/59876>

NeuroTouch Simulator



Sim-Welding



Auscultation



<http://www.cardionics.com>

Personal Learning – The Concept



Combining Experiences

One place for all learning experiences

The image displays a web application interface for a simulation learning space. On the left is a dark sidebar menu titled "Simulation Learning Space" with a "Simul:" header. The menu lists several categories with expand/collapse icons (+/-): Instrument Handling (x), Suction (+), Ultrasonic Aspirator (x), Ultrasonic Aspirator 102 (x), 2015-02-11 13:40:33, 2015-04-10 15:52:12, Bipolar (+), Microscissors (+), Fundamental Skills (+), and Spine Surgery (+). A grey arrow points from the "Suction" category in the sidebar to the "Scenarios' History" section of the main dashboard.

The main dashboard, titled "Simulation Learning Space", shows a navigation bar with "Simulators", "Home", "Scenarios", and "NT Account". The "Scenarios' History" section displays details for "Exercise: Suction 101" by user "admin" on "May 25 12:37:30 2015", with a "Previous Attempt" on "May 25 10:23:08 2015". It includes a "Image Not Found" placeholder, an "Overall Score History" line graph showing a score of 50% on two attempts, and a table of performance metrics:

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%

The overall score is displayed as "Overall Score: -50/100". To the right, the "Recommendations" section states: "These recommendations are given to you considering the exercises you have fully completed." Below this is a thumbnail of a "NeuroTouch Courseware" interface showing a surgical simulation.

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

4. Learning Communities - the cMOOC

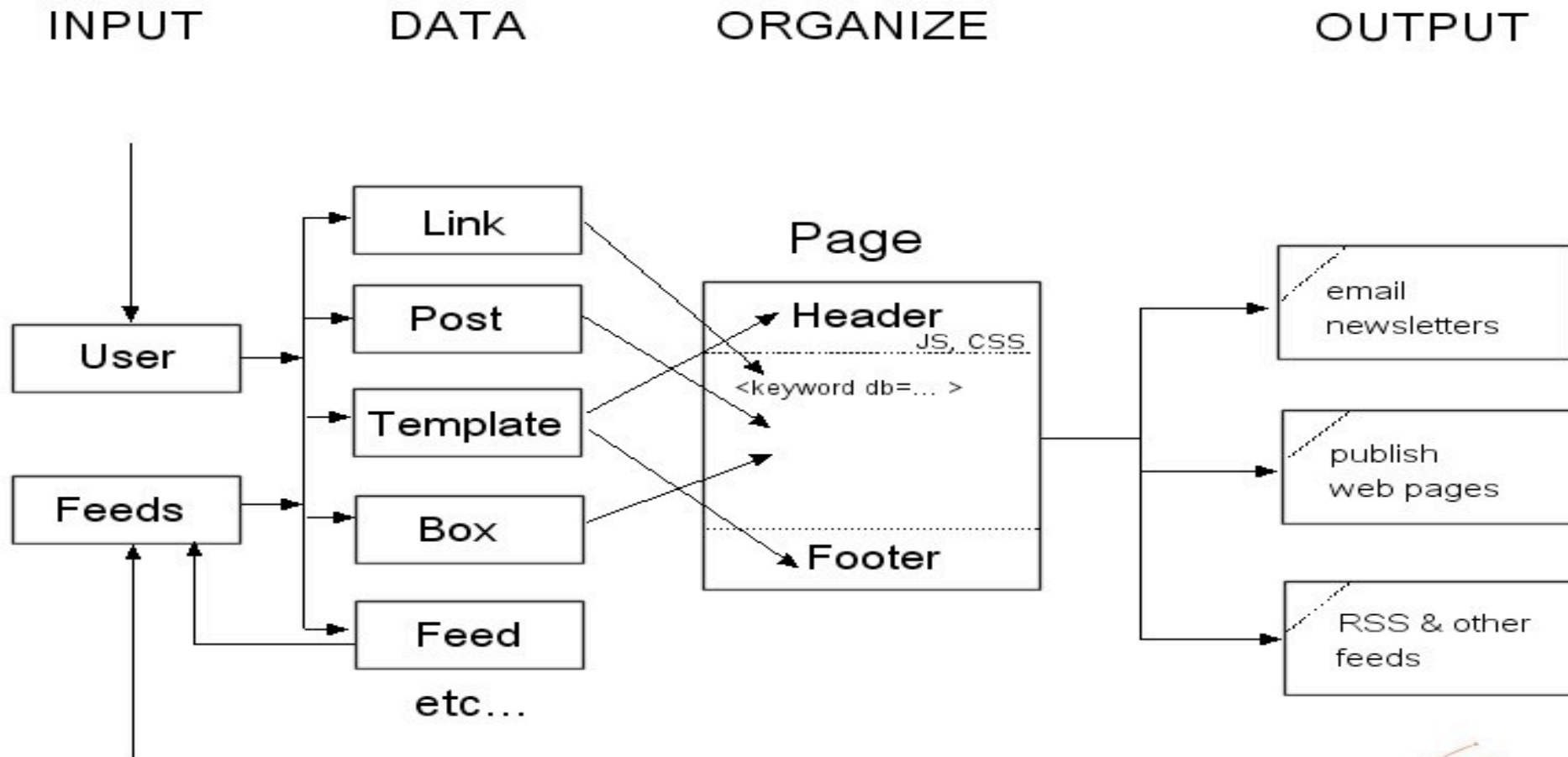


MOOC Design

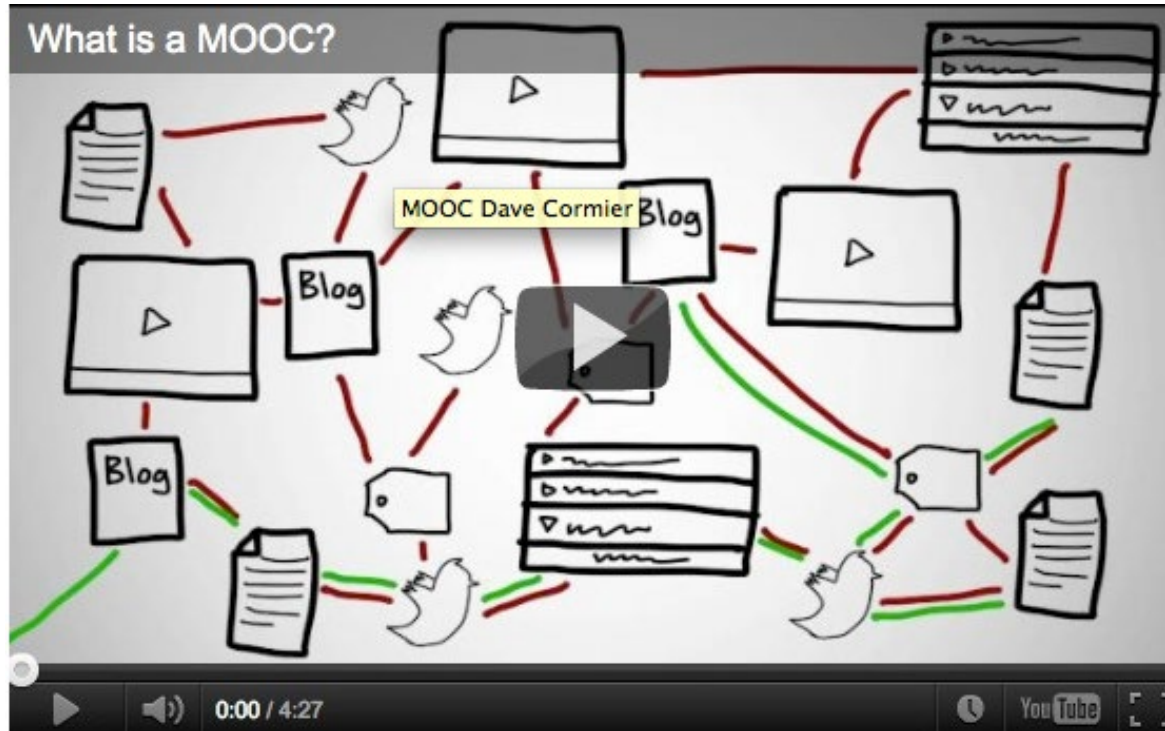
- Course structure – a series of topics
 - The instructors will not ‘teach’ the topics, they ‘investigate’ or ‘work through’ the topics (model and demonstrate)



gRSShopper



How to Learn in a cMOOC

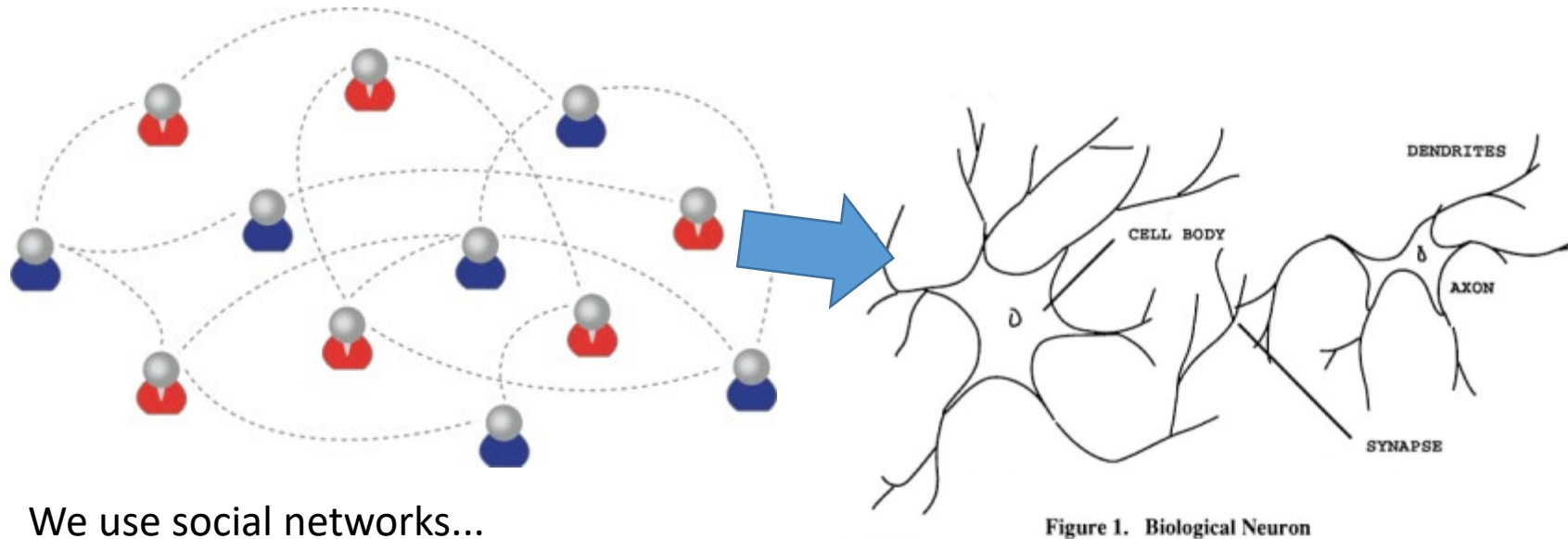


Learning is a process of immersion into a knowing community

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

How to Create a Learning

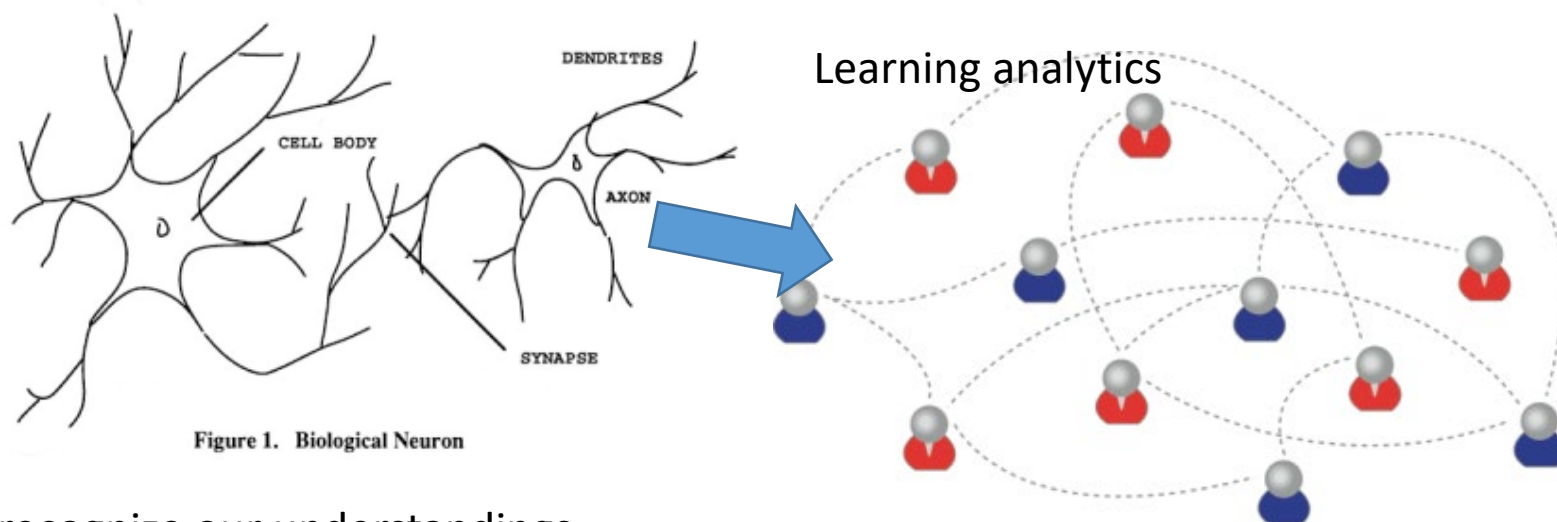
- It's like creating a network
- Don't centralize
- Concentrate on the creation of links



... to create personal knowledge

How to Evaluate Learning

- Learning is not possession of a collection of facts, it's the expression of a capacity
- Learning is recognized by a community of experts in a network



We recognize our understandings...

...by the way we use them in our social network

xLearning vs cLearning



contents

engagement

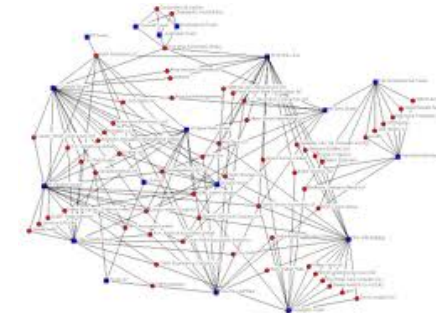
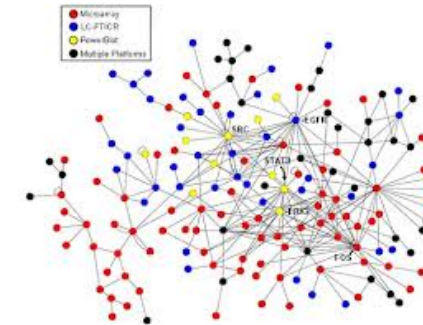
networks



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



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

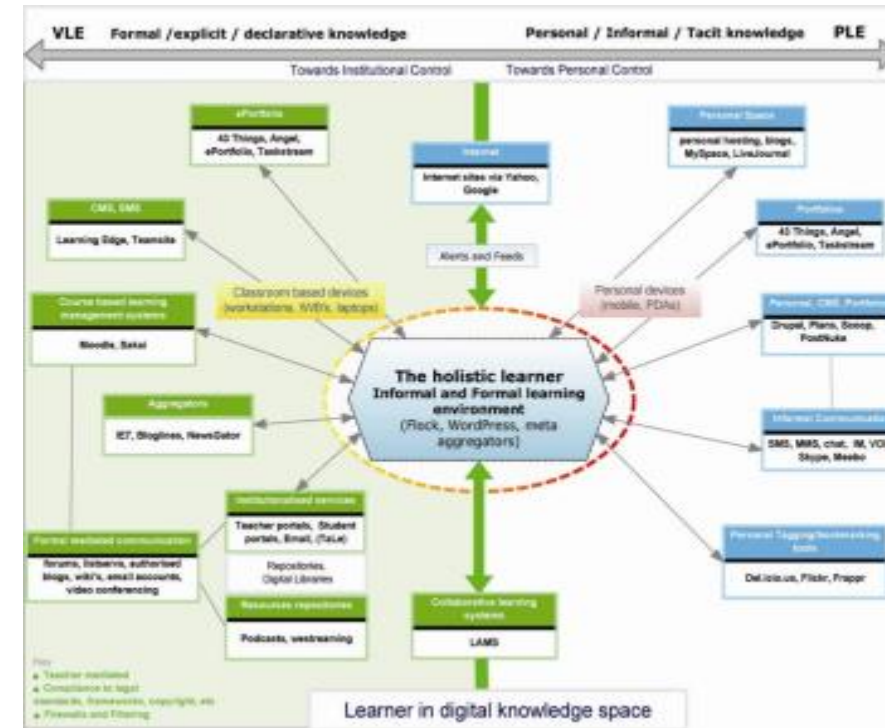
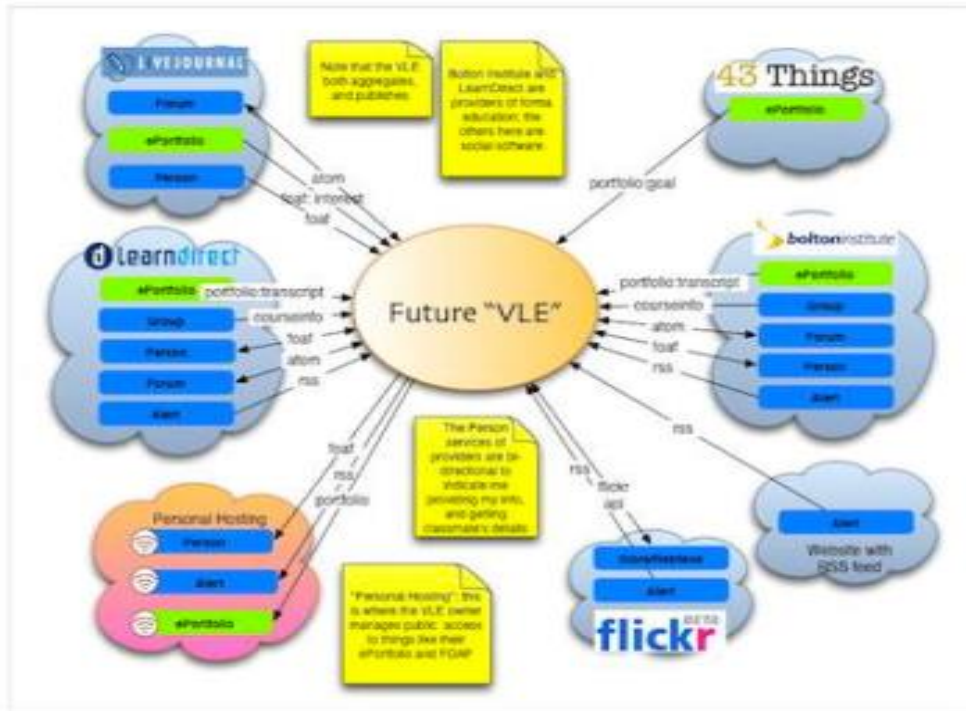


<http://lisahistory.net/wordpress/2012/08/three-kinds-of-moocs/>

5. Personal Learning Environments



The design is based on putting the learner at the centre

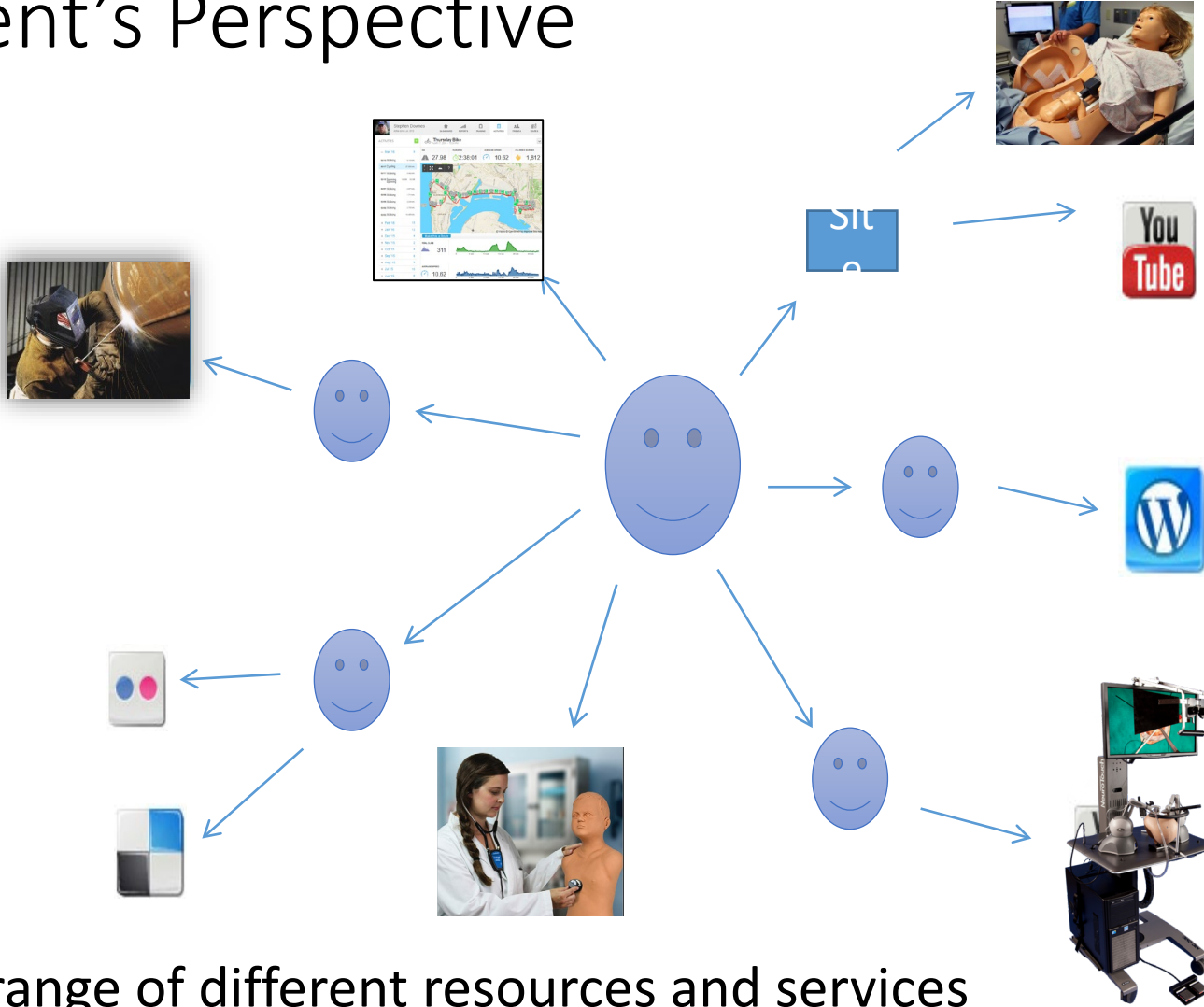


Scott Wilson (left), Tim Hand (right)

<https://www.google.com/search?q=ple+diagrams>

http://www.edtechpost.ca/ple_diagrams/index.php/mind-map-3

The Student's Perspective



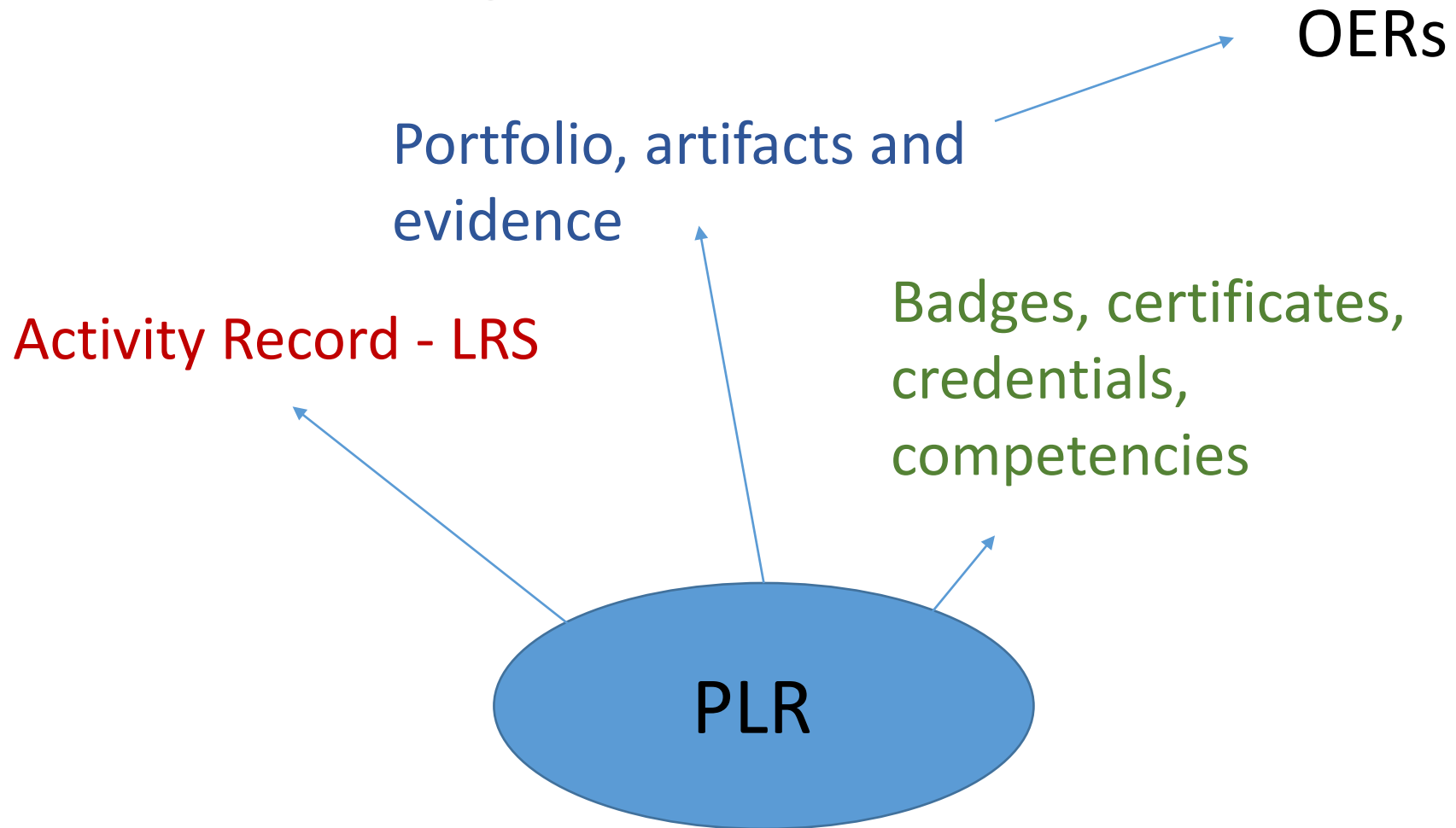
A range of different resources and services

Personal Learning Record

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



Personal Learning Record



LPSS 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.

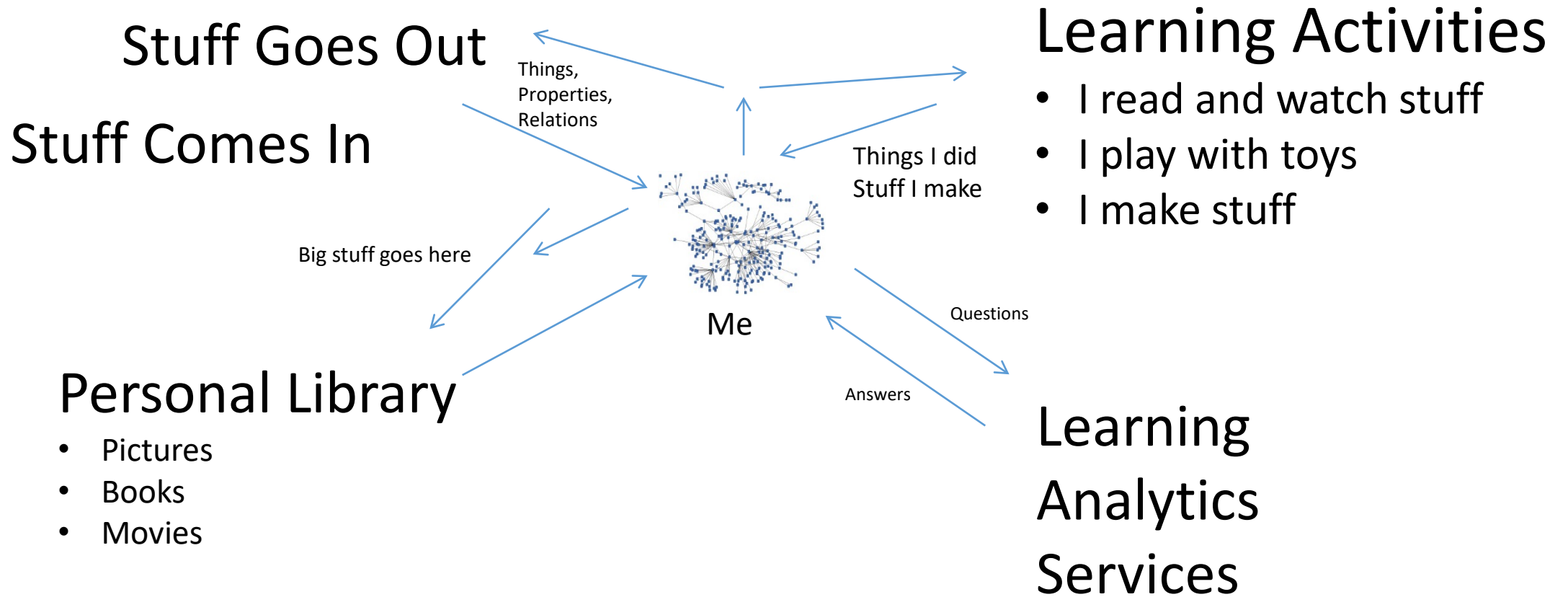


Me

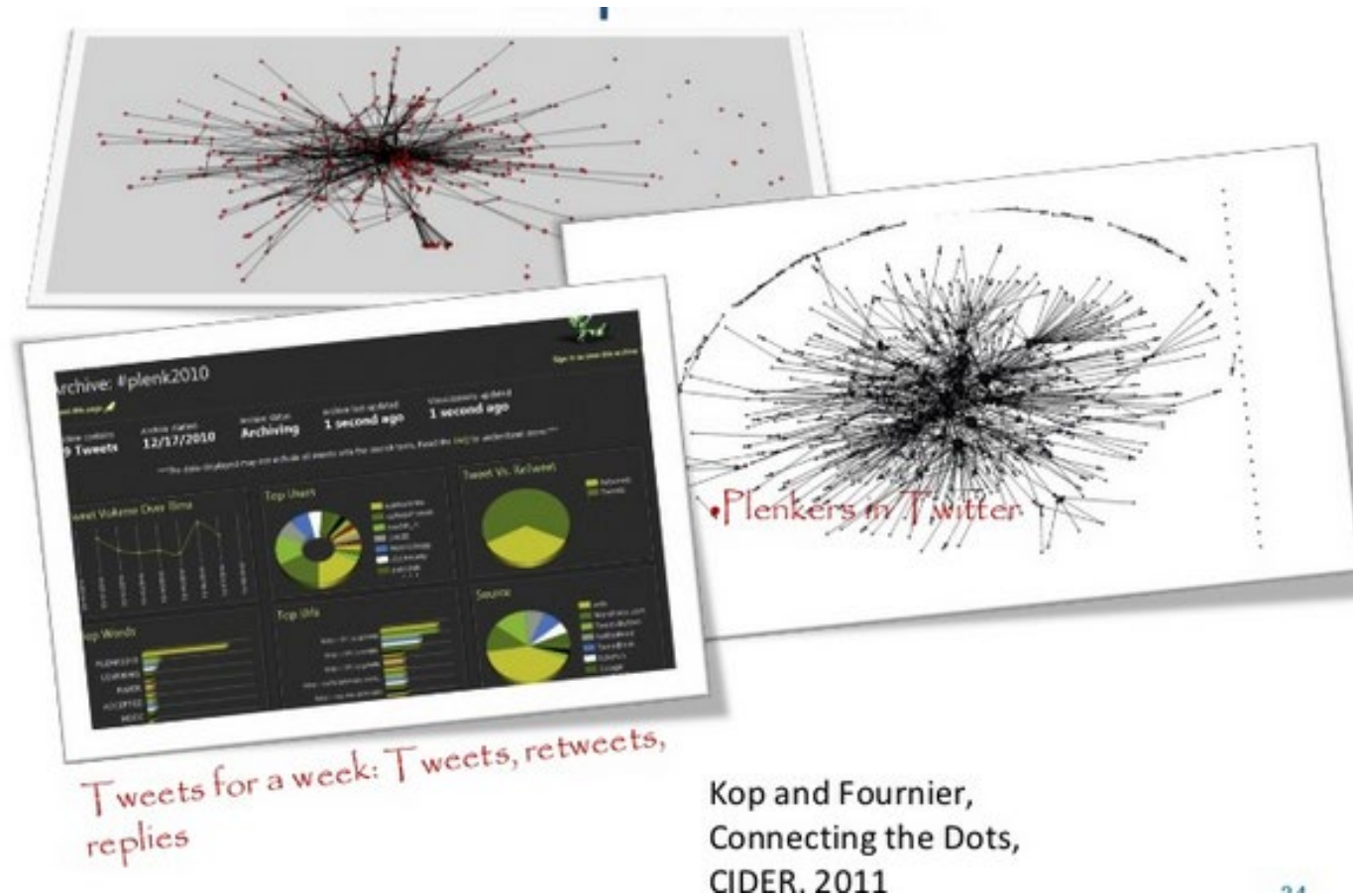
The PLR contains all a person's learning records, including:

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

LPSS is Built Around the Personal Learning Record



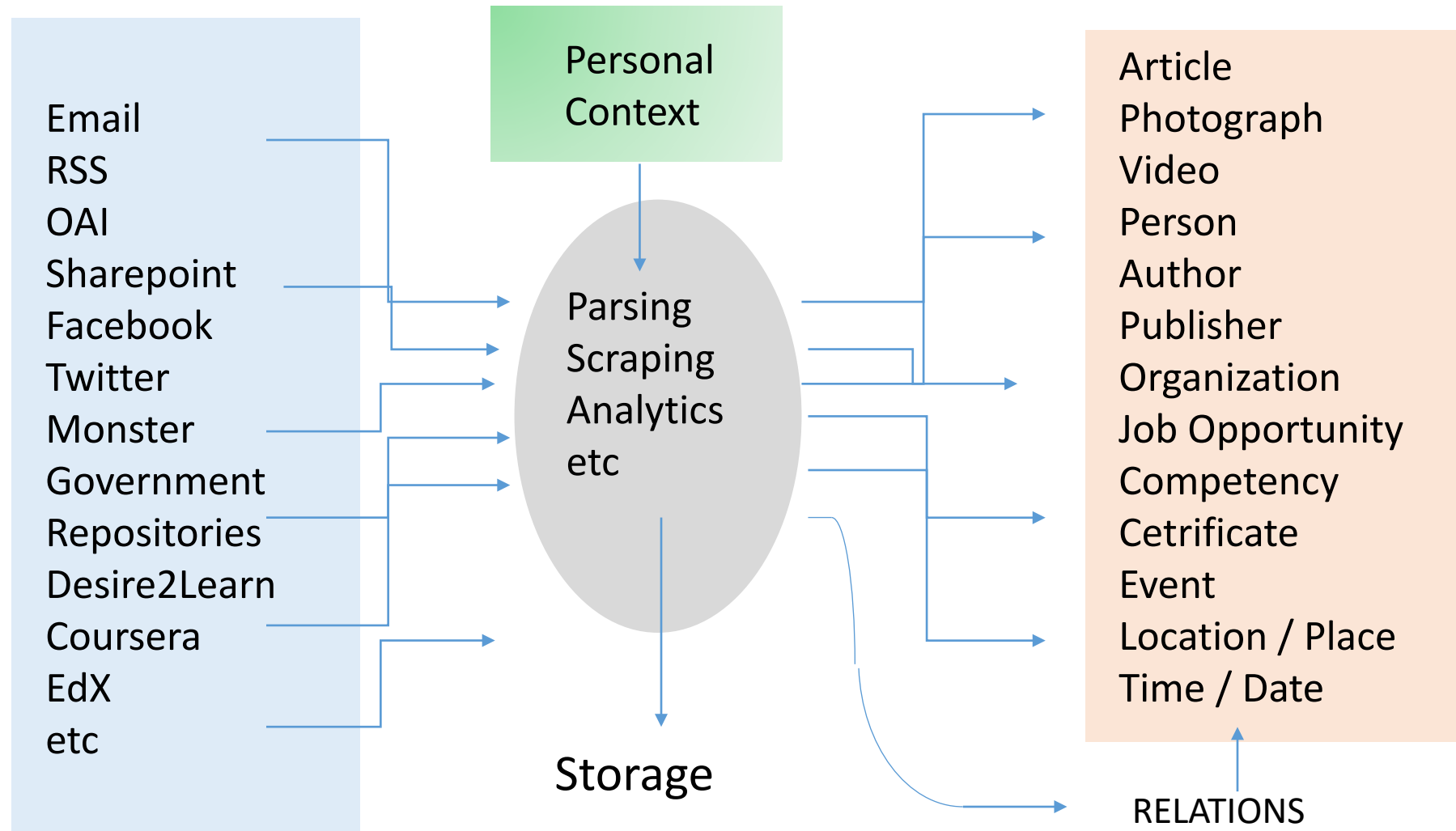
Plearn – Importance of the Graph



<http://www.slideshare.net/Downes/after-moodle>

<http://www.slideshare.net/Ritakop/kopfourniercanadianinstitutedistanceeducationresearchple>

Graph Aggregation and Storage



Future Projects...

- OERs, Repositories, Marketplaces
- Badges, Credentials, Recognition
- Simulations & Workplace Support
- Matching People to Opportunities





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<http://www.downes.ca>