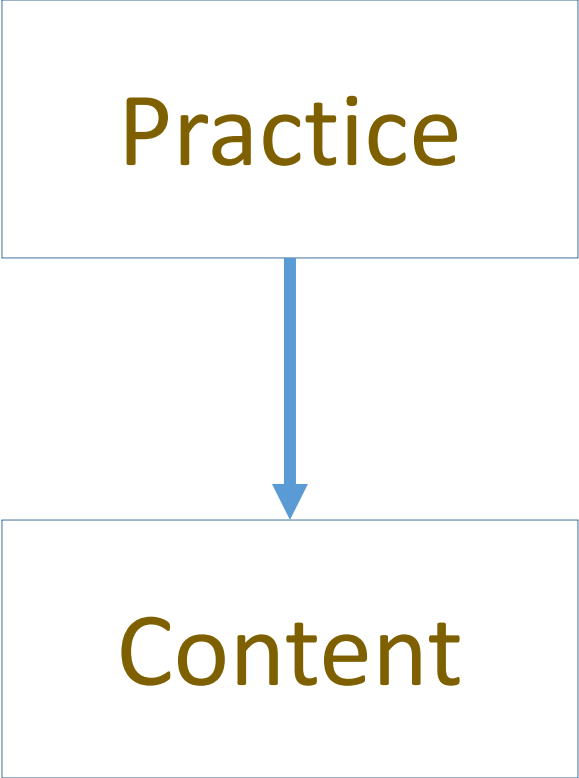
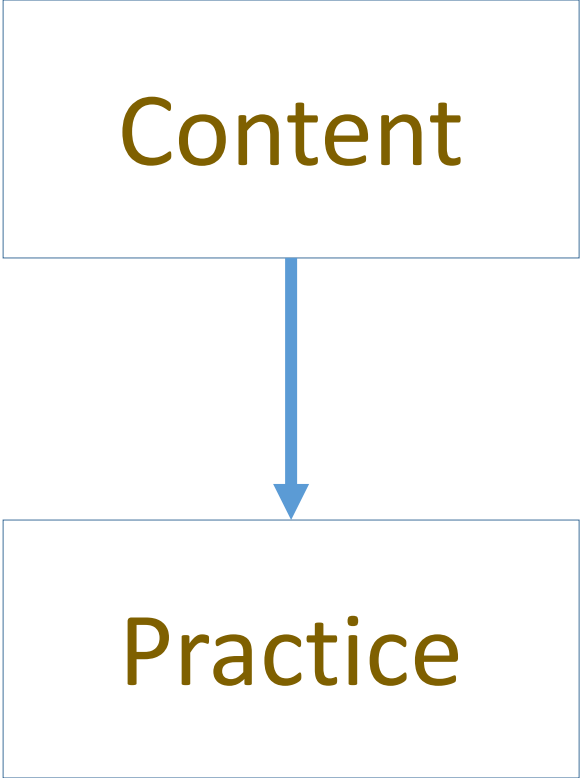


Stephen Downes

13 October 2015

MOOCs, cLearning and cLearning

Two Approaches...



Two Approaches...

Defines an ideal state

Content



Practice

TEST

Person tests you

Defines a desired state

Practice

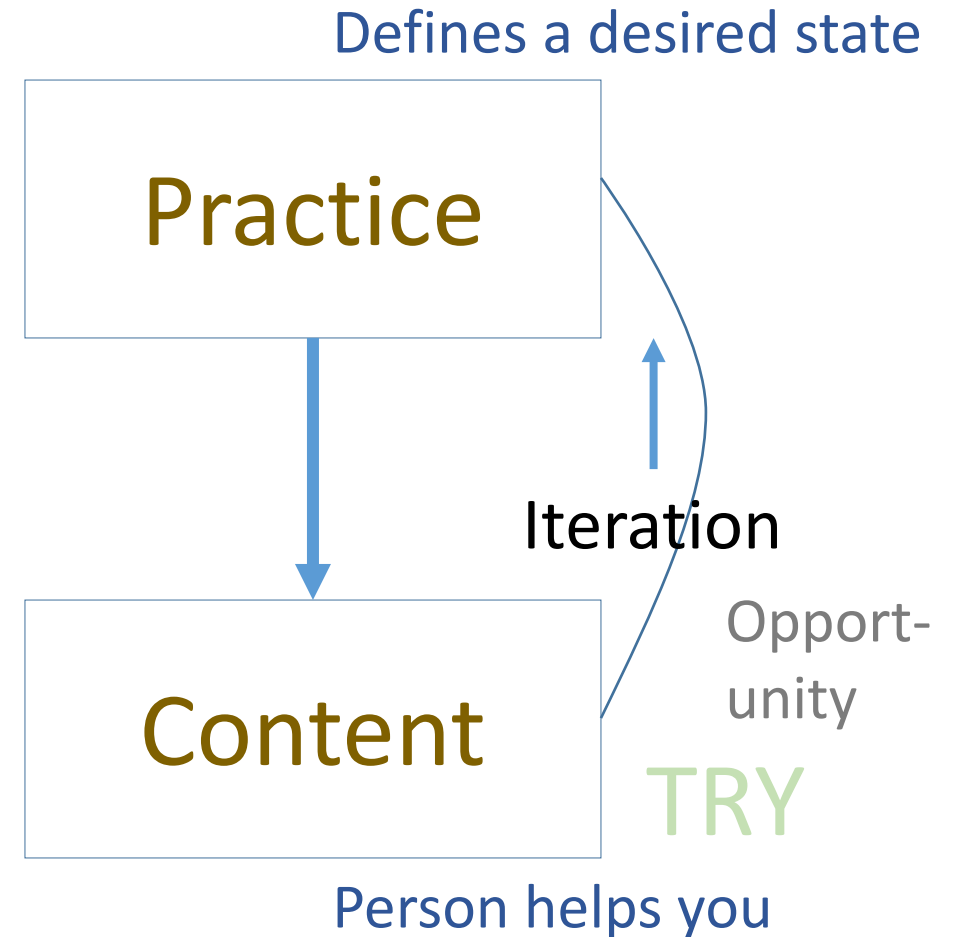
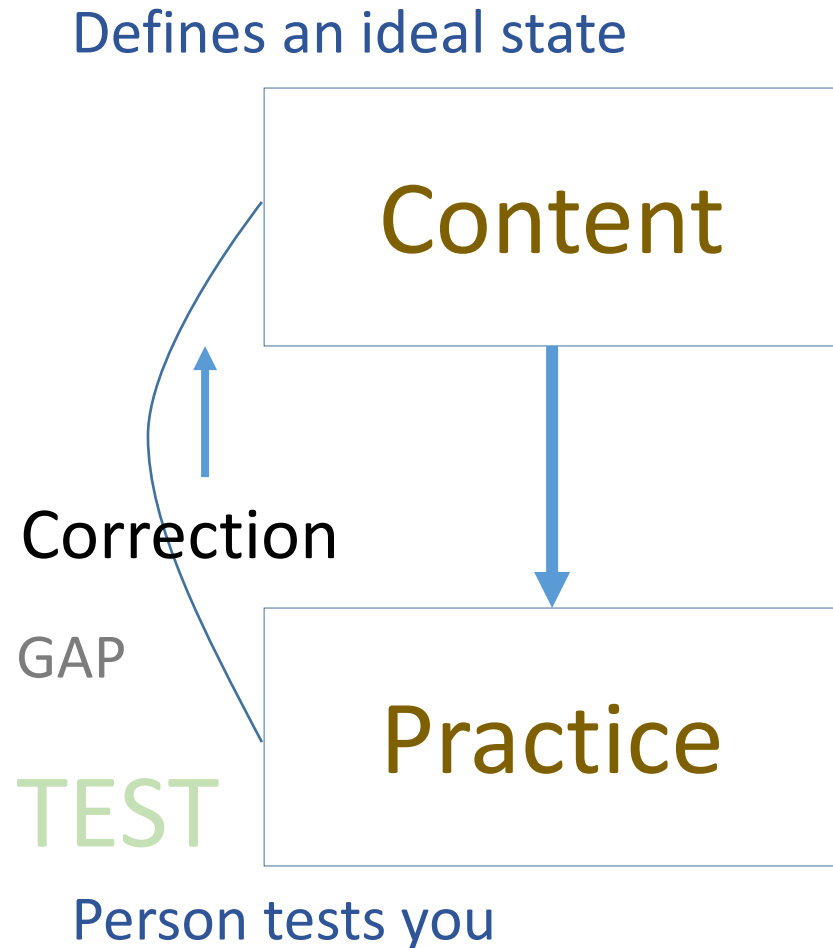


Content

TRY

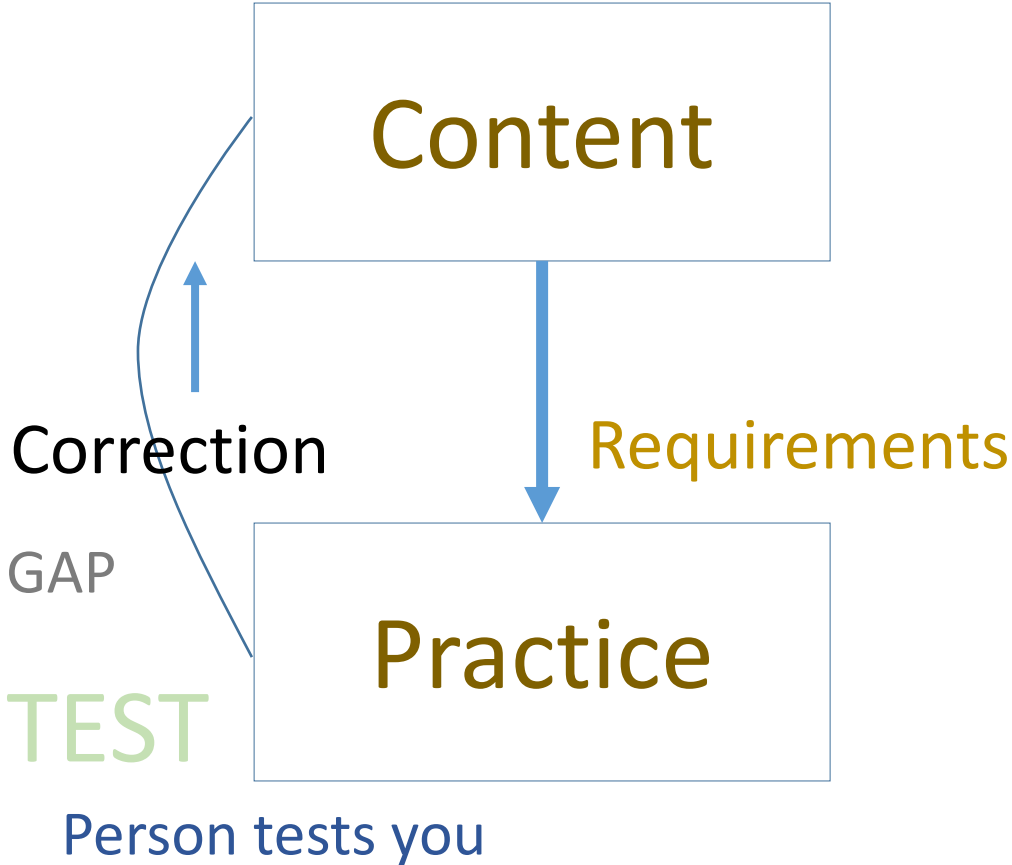
Person helps you

Two Approaches...



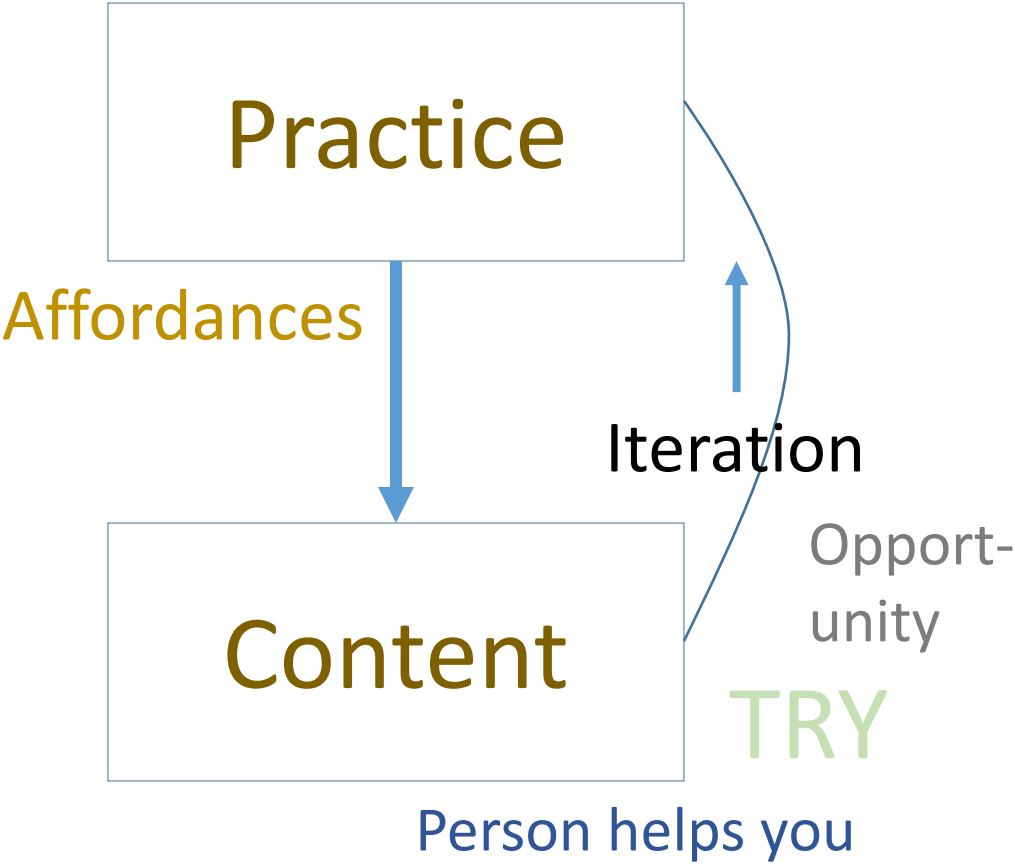
Library

Defines an ideal state



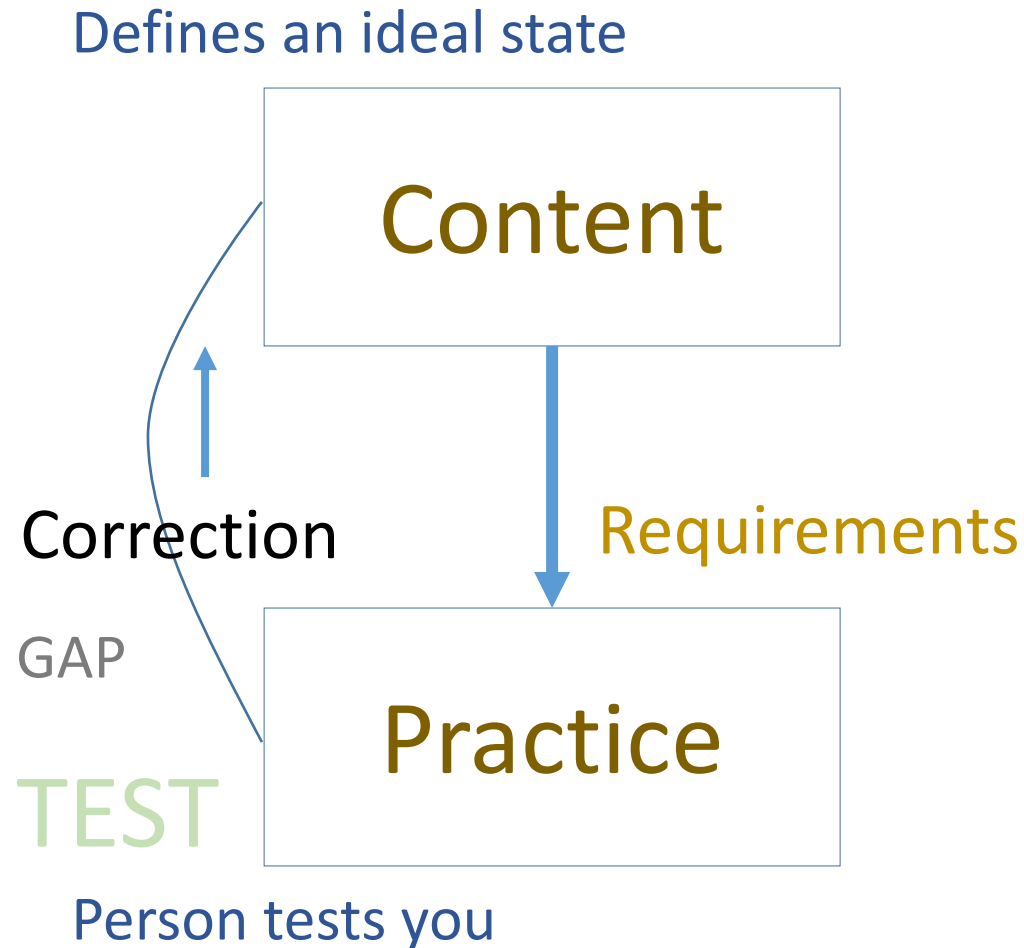
Environment

Defines a desired state



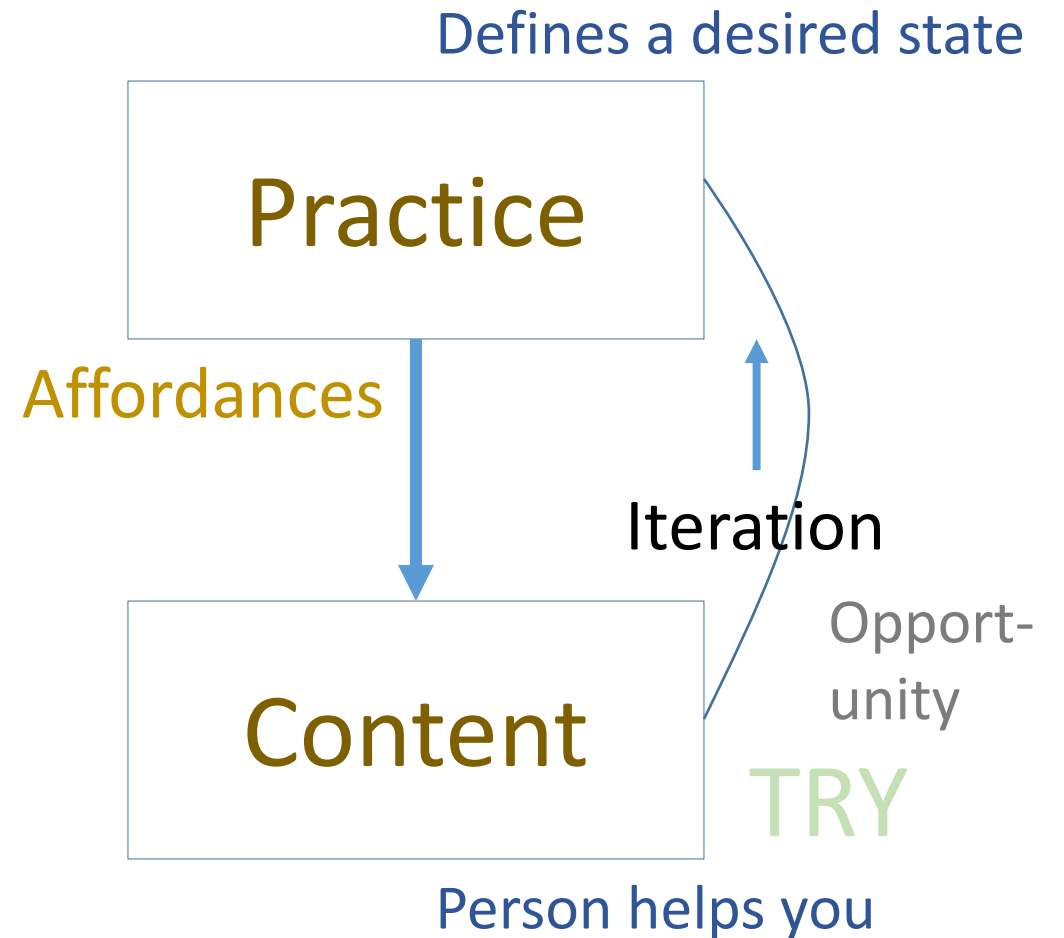
Personalized

We do for you



Personal

You do for yourself



xLearning vs cLearning



contents

engagement

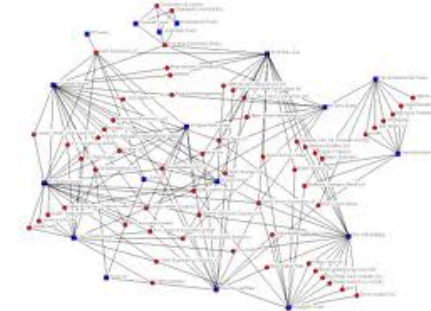
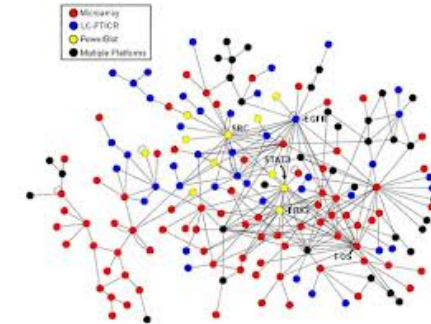
networks



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



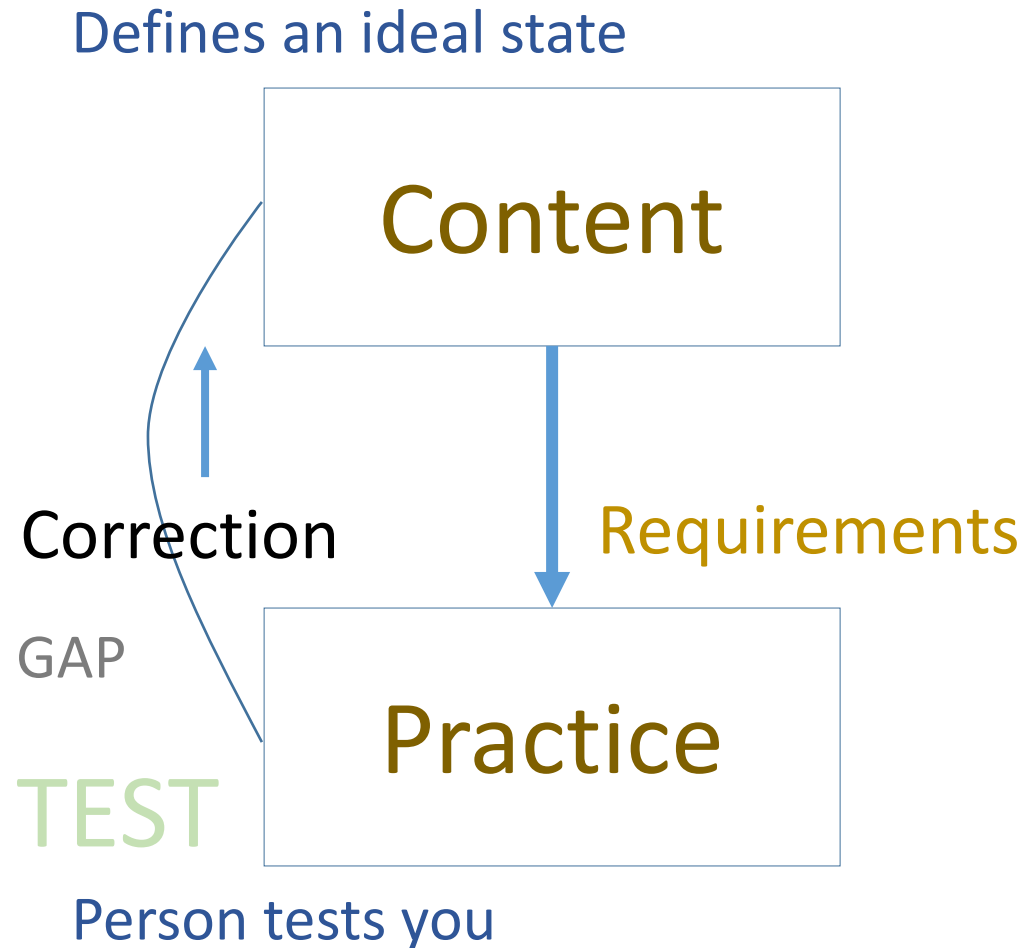
<http://www.magnet.edu/>



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

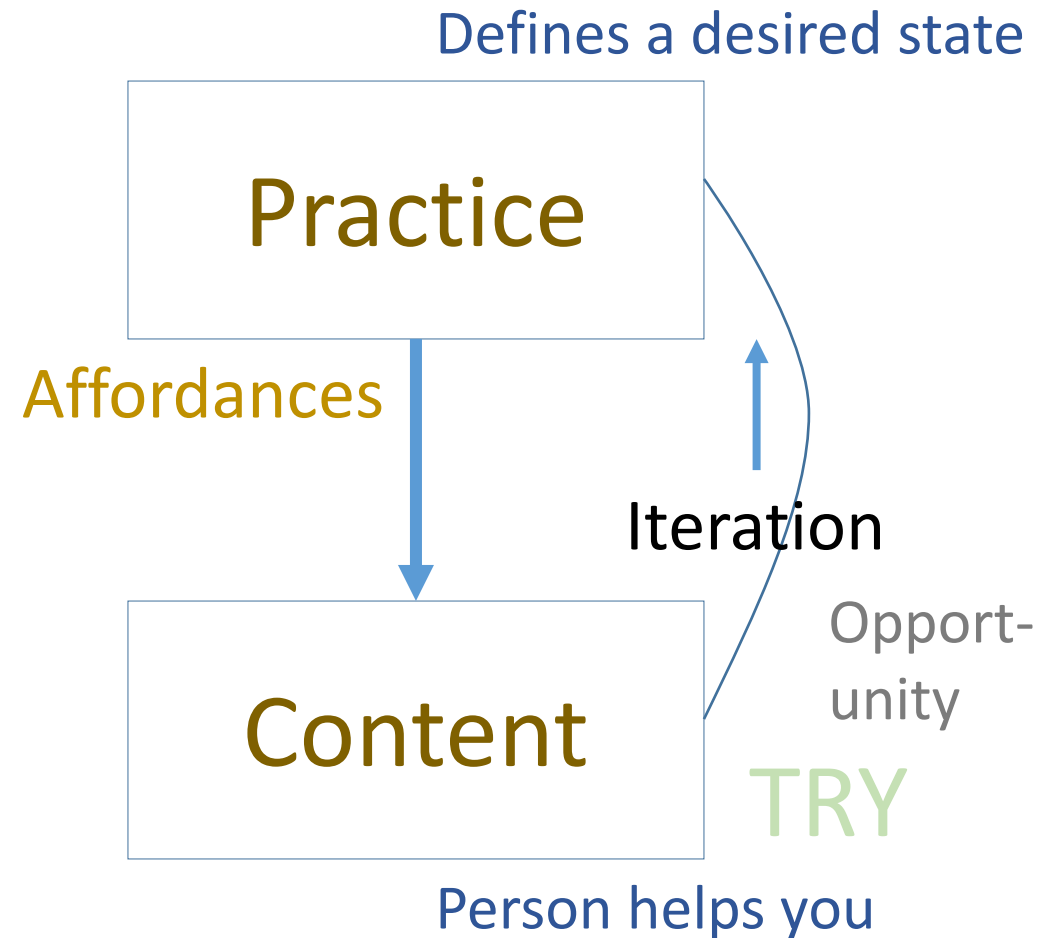
Personalized

We do for you



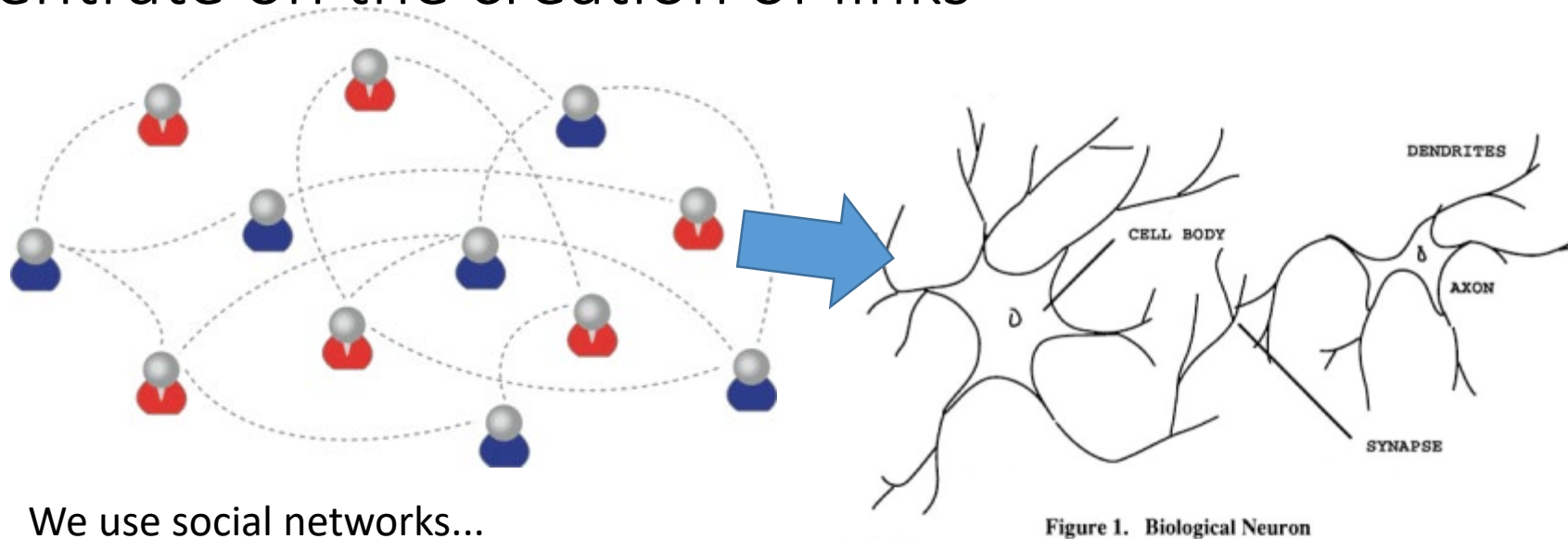
Personal

You do for yourself



How to Create a cMOOC

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

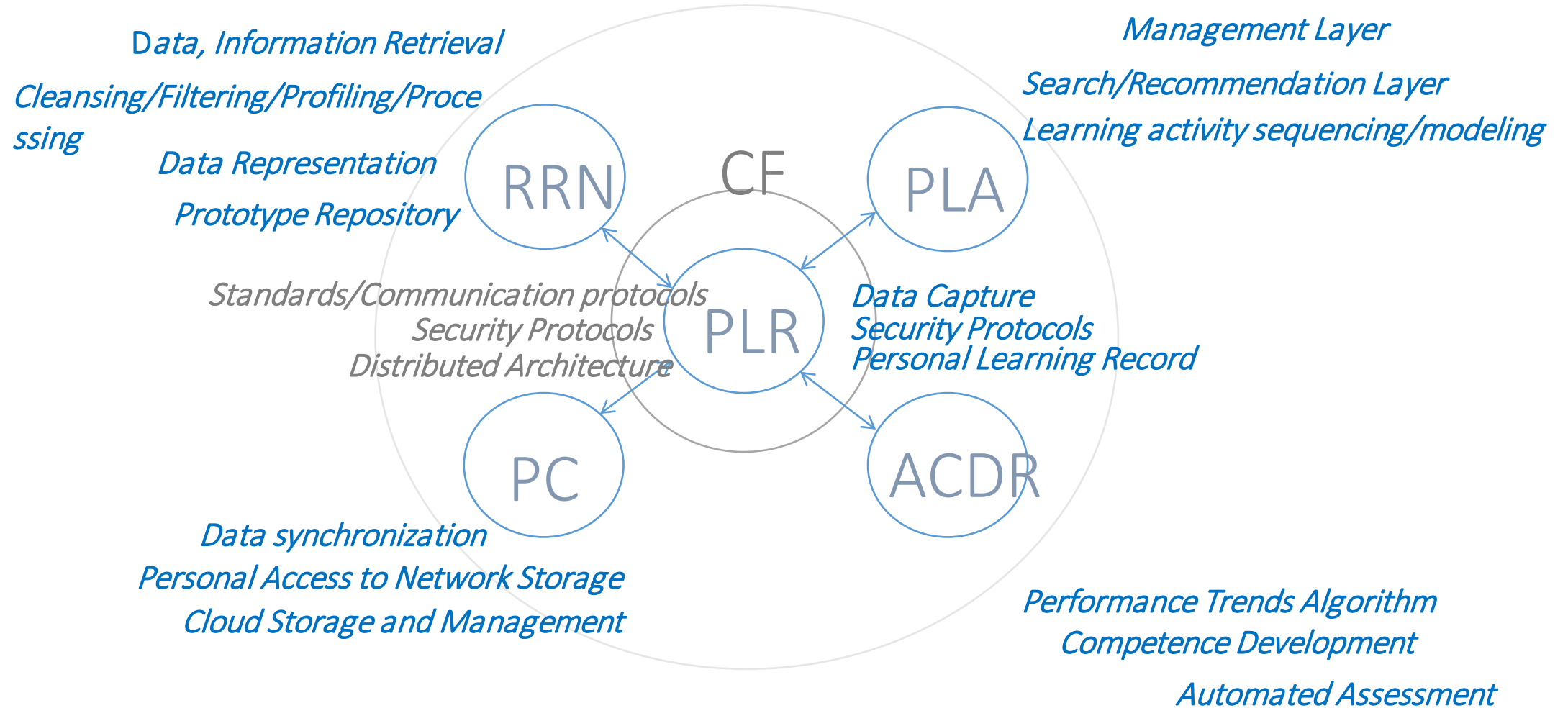


We use social networks...

Figure 1. Biological Neuron

... to create personal knowledge

LPSS (Learning & Performance Support Systems)



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.

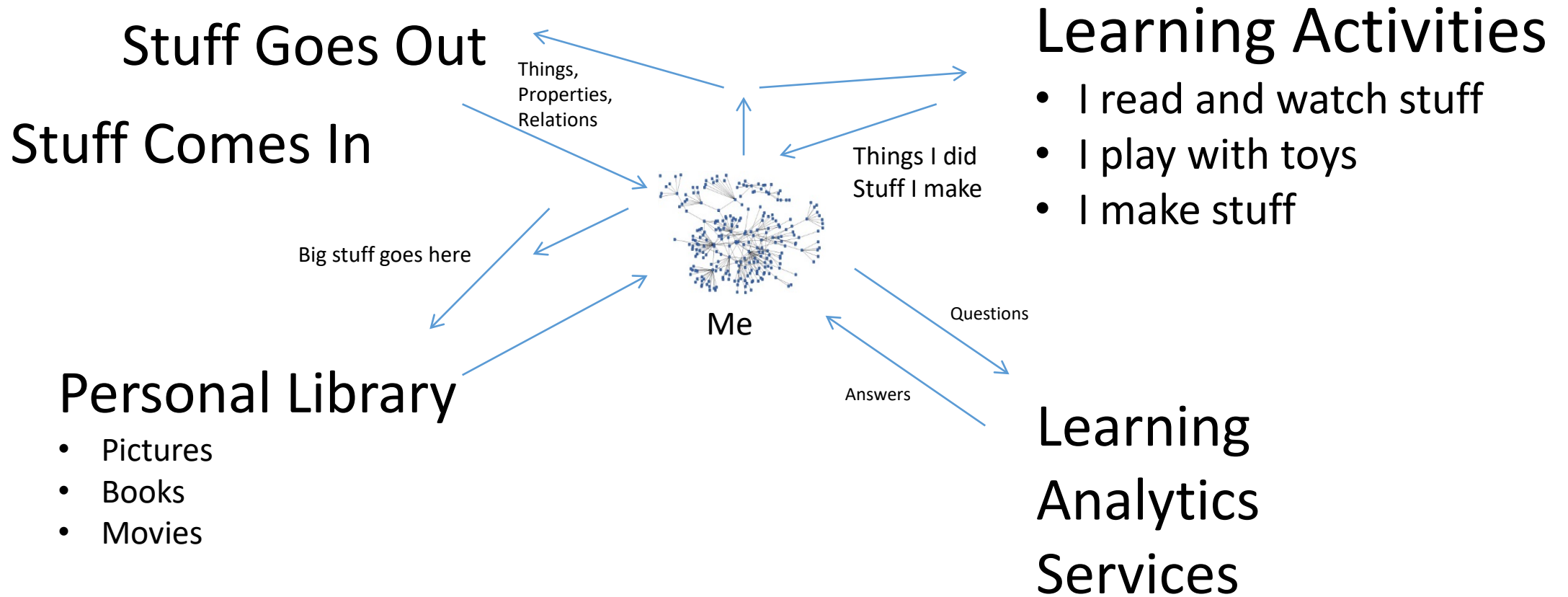


Me

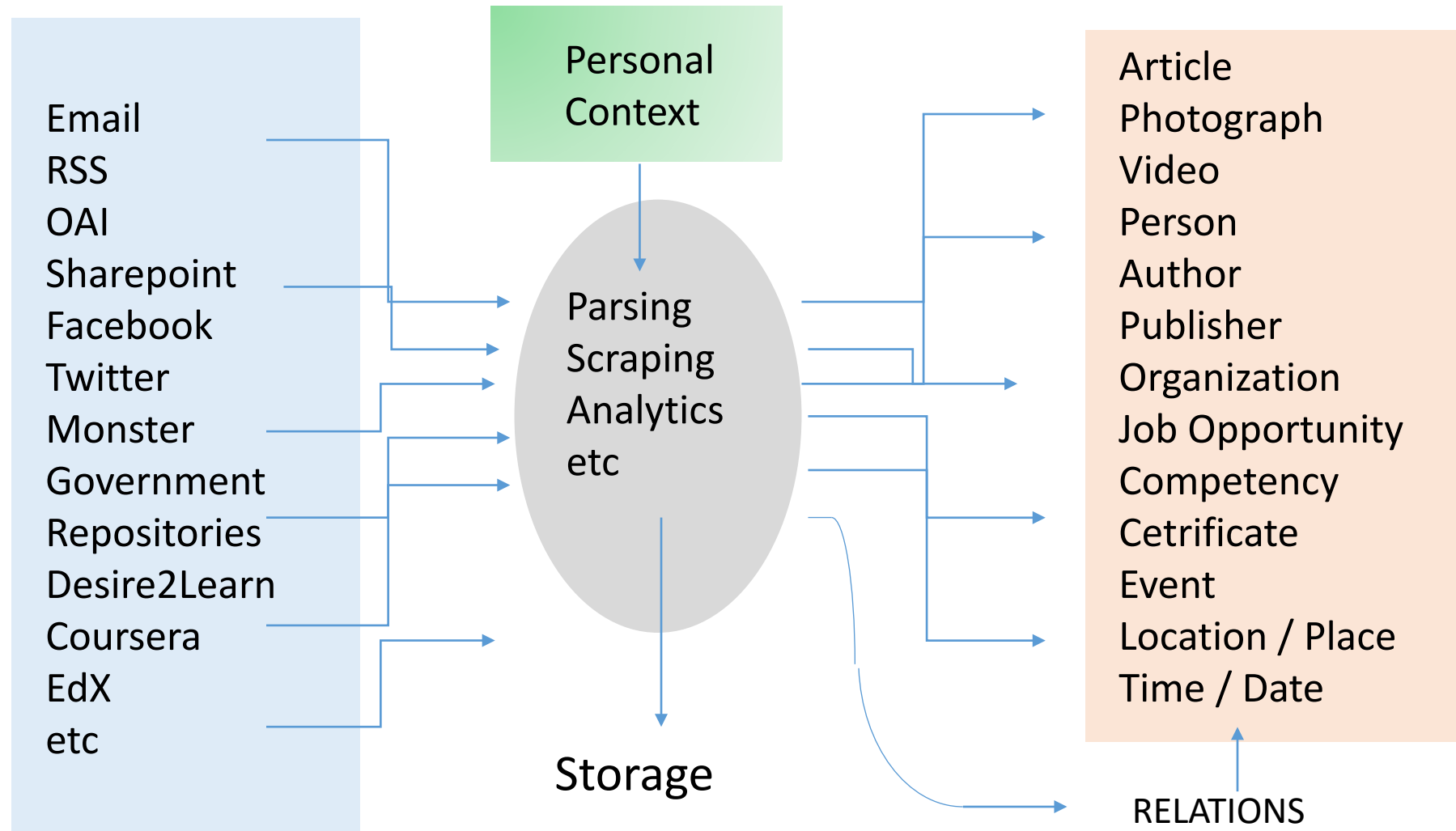
The PLR contains all a person's learning records, including:

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

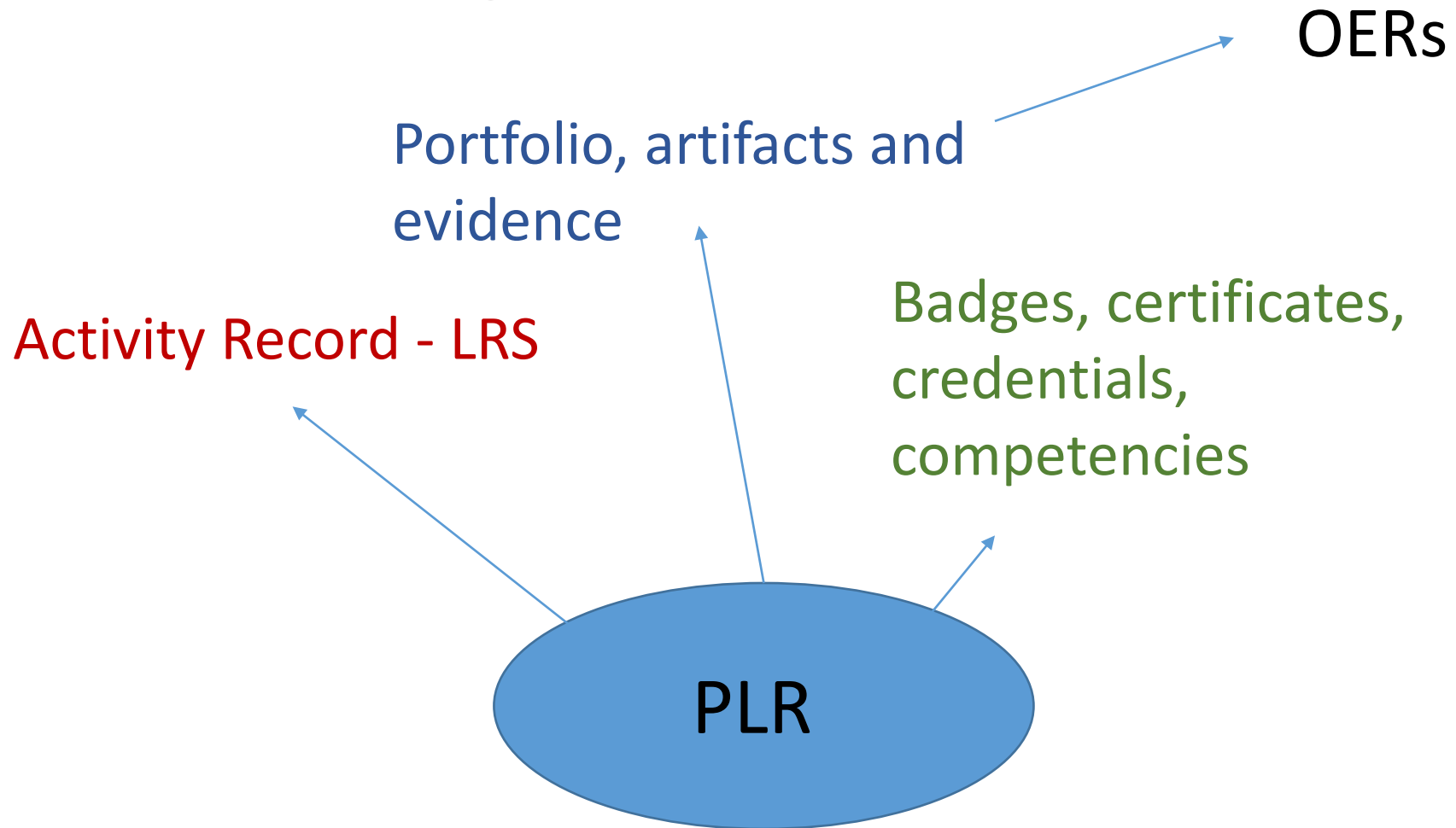
LPSS is Built Around the Personal Learning Record



RRN Aggregation and Storage

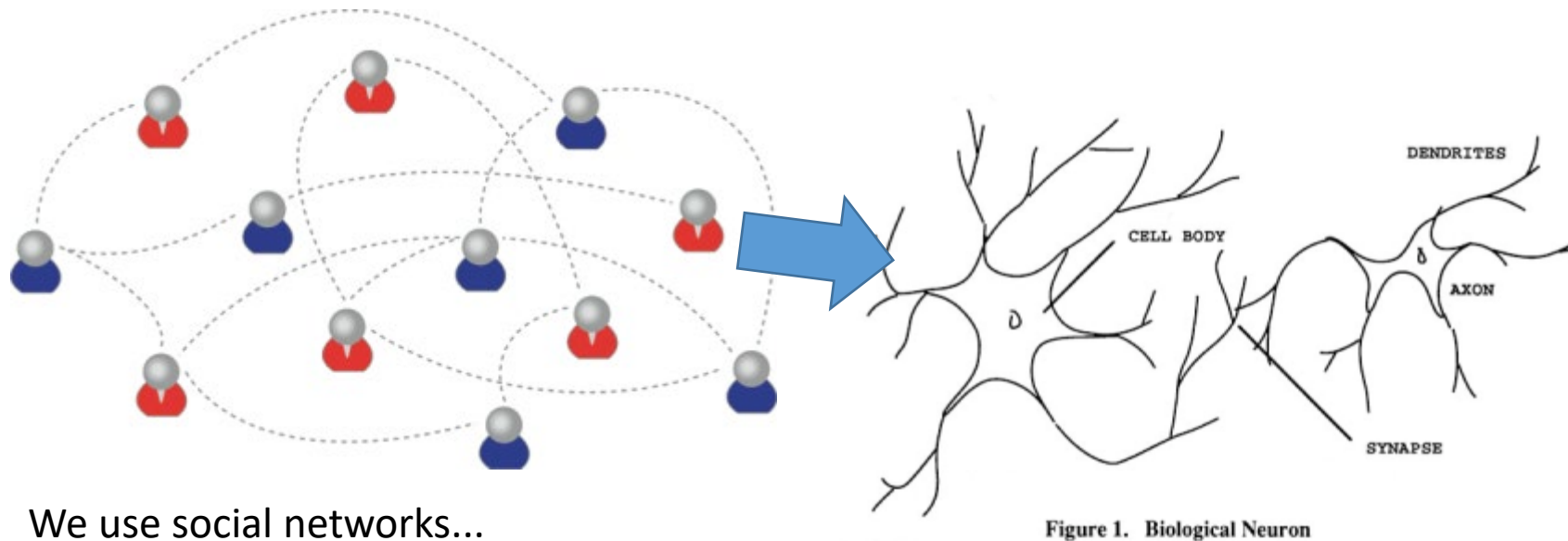


Personal Learning Record



What is Learning?

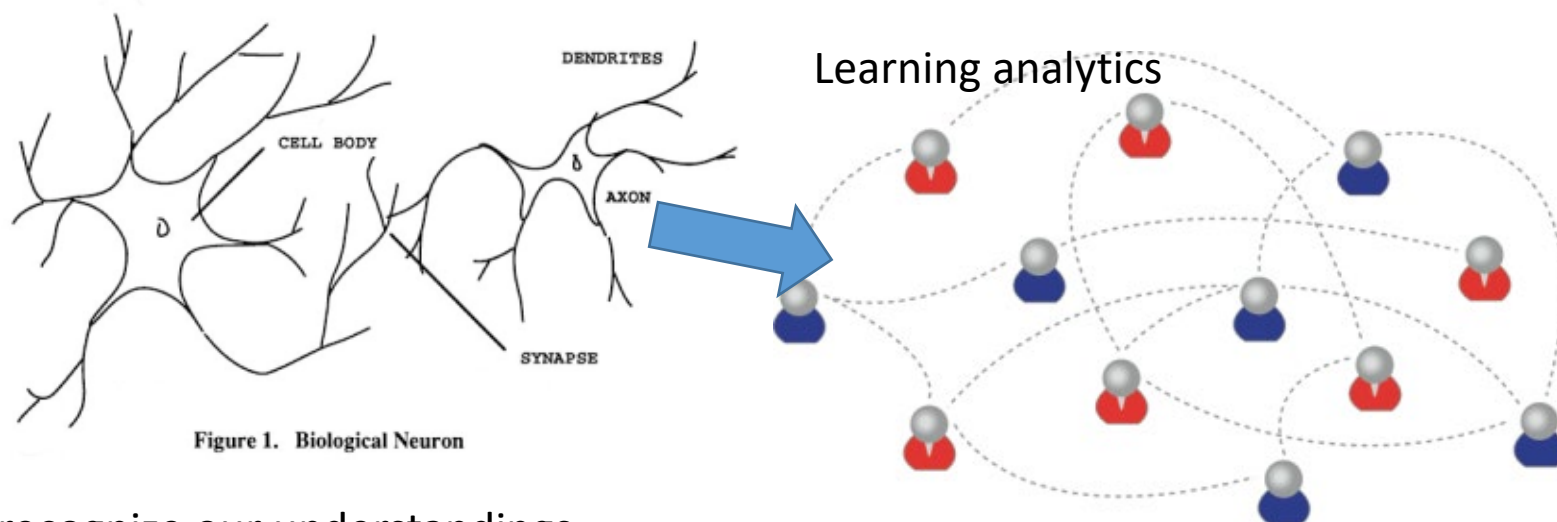
- Engagement and experience in professional networks
- *We grow* our knowledge and capacities



... 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

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/>



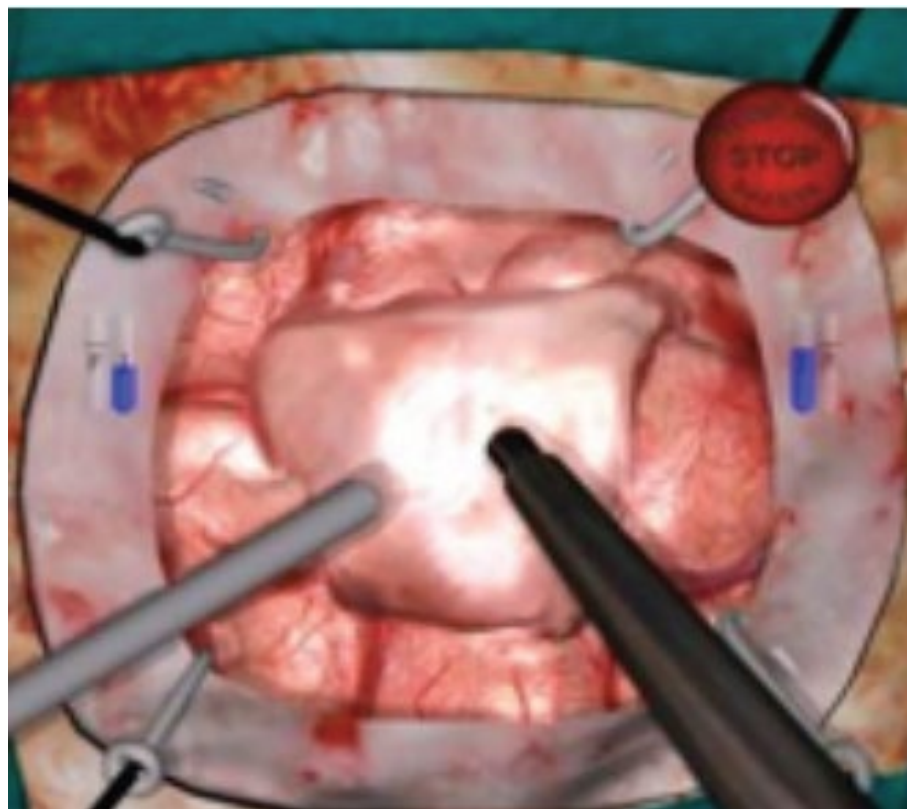
<http://www.aiac.ca/canada-aerospace-industry/success-stories/cae-nh90-helicopter-simulator/>

MINT - Mobile INteractive Trainer

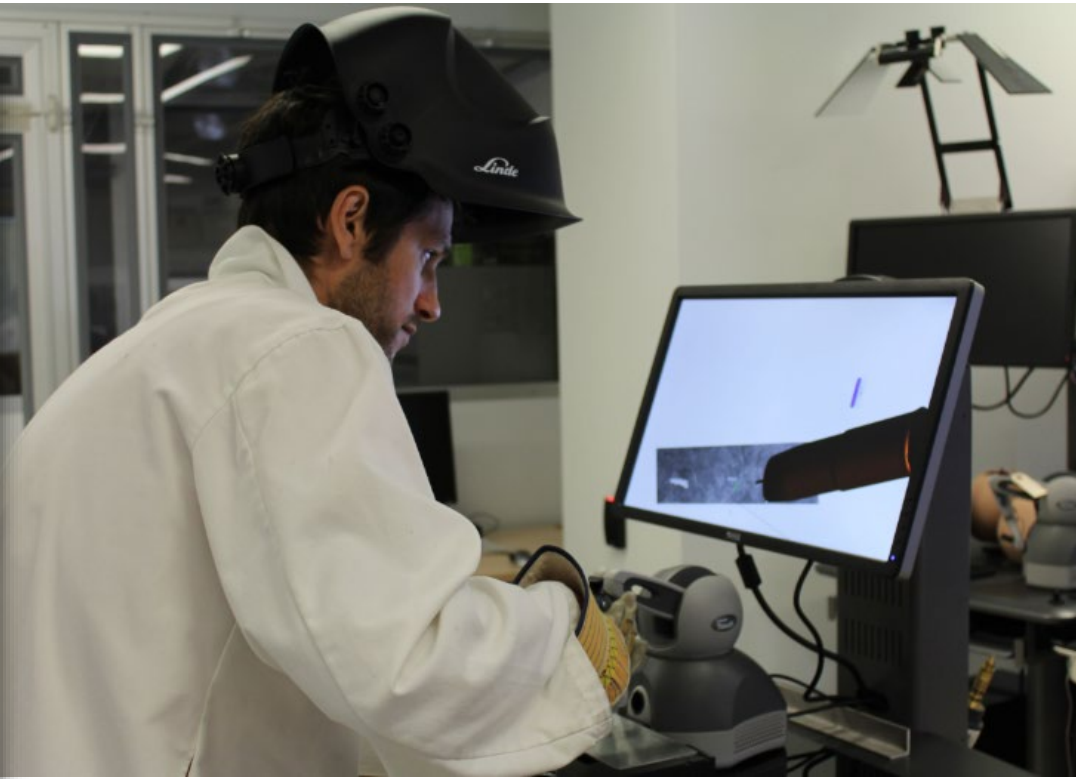


<http://www.downes.ca/post/59876>

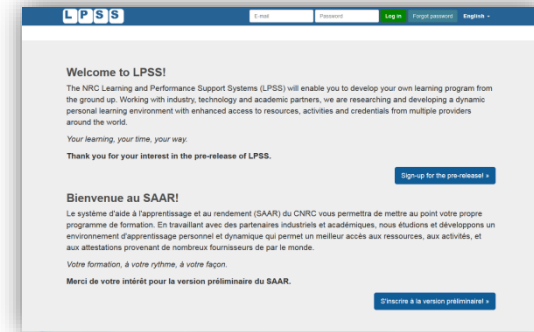
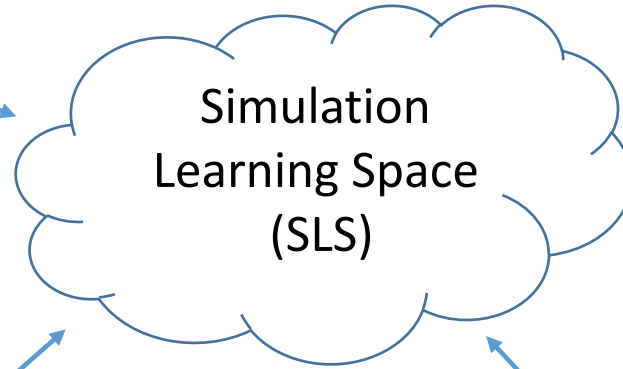
NeuroTouch Simulator



Sim-Welding



LPSS-Sim Project Overview



Combining Experiences

One place for all simulation experience

The image displays a web-based simulation learning interface. On the left is a dark sidebar menu titled "Simulation Learning Space" with a search icon. The menu lists several categories: "Instrument Handling", "Suction", "Ultrasonic Aspirator", "Ultrasonic Aspirator 102", "Bipolar", "Microscissors", "Fundamental Skills", and "Spine Surgery". Each item has a plus sign to its right, and some have an 'x' icon. A grey arrow points from the "Suction" item in the sidebar to the main dashboard area.

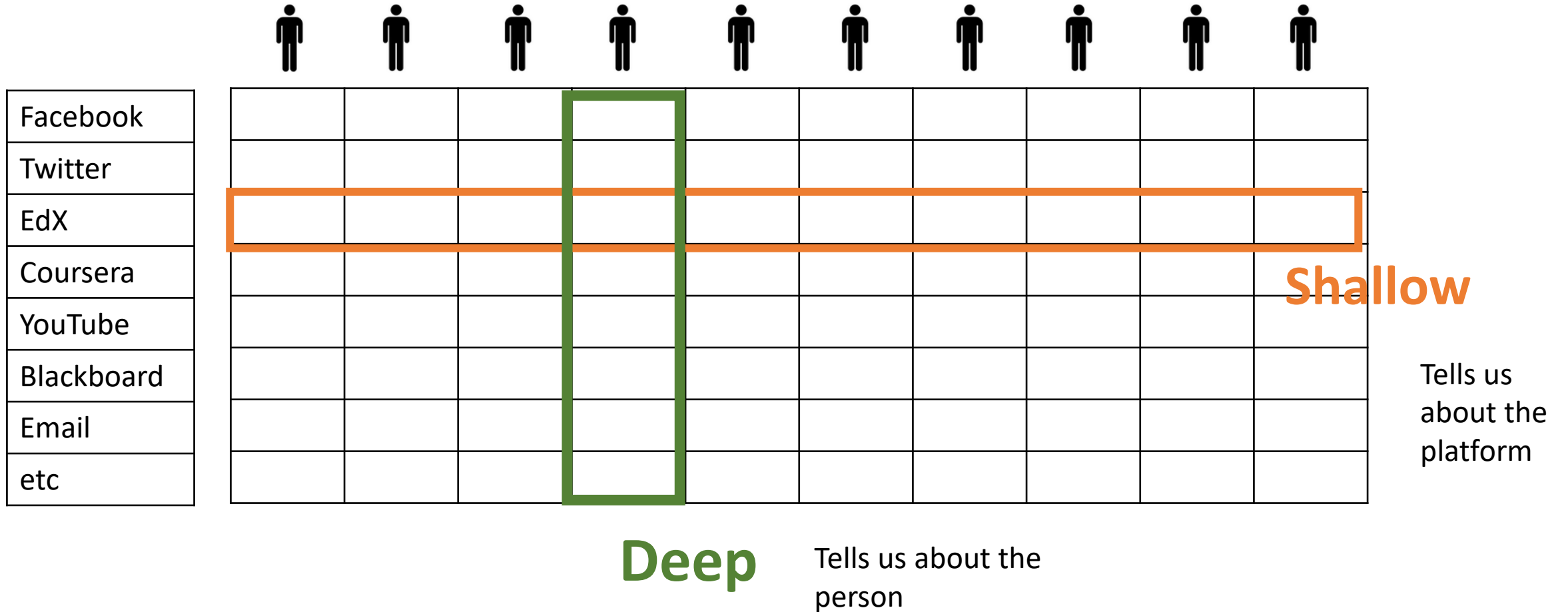
The main dashboard, titled "Simulation Learning Space", shows a "Scenarios' History" section for "Exercise: Suction 101". It includes user information (User: admin, Date: May 25 12:37:30 2015, Previous Attempt: May 25 10:23:08 2015), a "Image Not Found" placeholder, and an "Overall Score History" line graph. Below this is 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 of the dashboard is a "Recommendations" section with a sub-header "NeuroTouch Courseware" and a small image of a person using a simulation device.

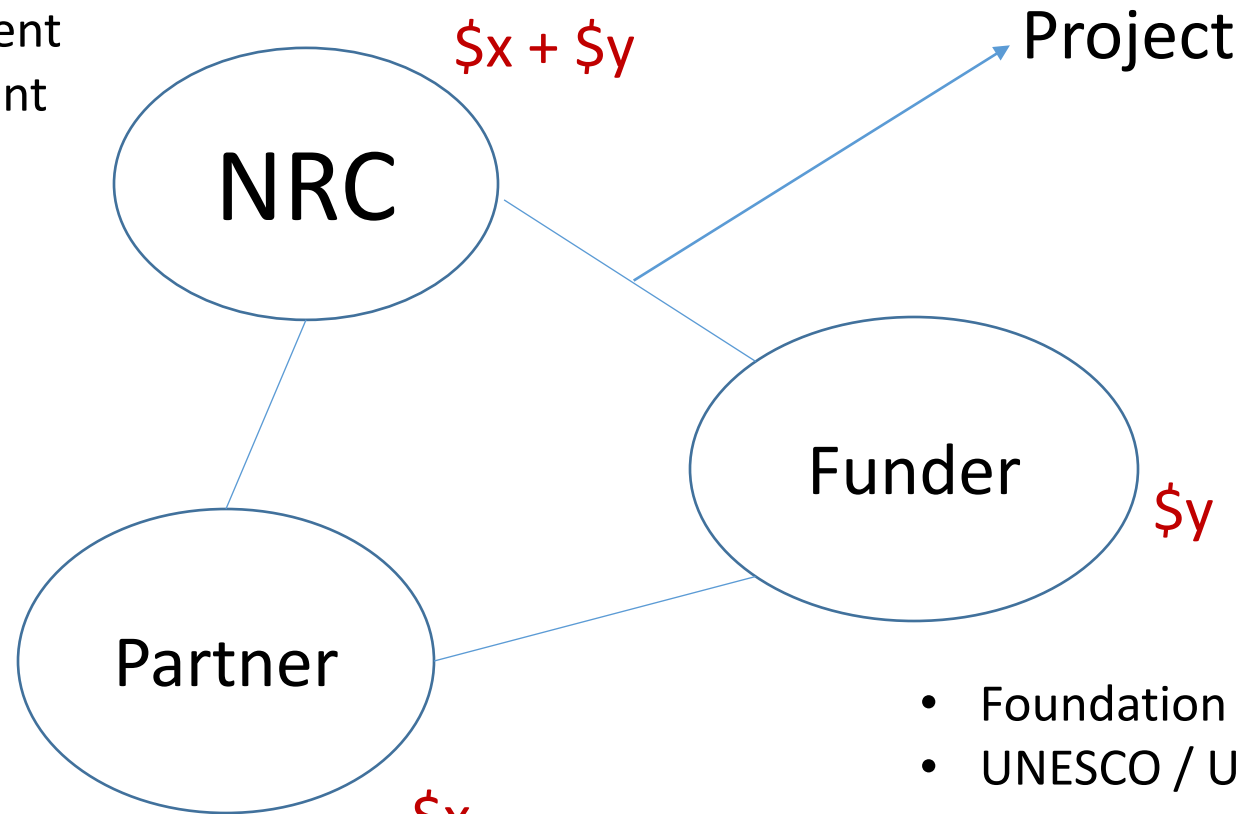
All performance results no matter where and when they were carried out

Analytics and Big Data



Expanding LPSS

- \$20 Million Investment
- NRC Technologies
- Development Environment



- University
- Government
- Development Agency

- Foundation
- UNESCO / UN
- Corporate Partner



Stephen Downes

<http://www.downes.ca>