#### Personal Learning in a Connected World: Learning and Performance Support Systems

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Riyadh, Saudi Arabia

http://www.downes.ca/presentation/348

#### Yes, we can predict the future



I took this picture yesterday knowing I would want to use it in this presentation today.

#### In 1998 I predicted...

- High-speed wireless access
- Importance of audio and video
- The iPad (even got the name right)
- Learning objects (called 'modules')
- Learning management systems
- Personalized education

The Future of Online Learning: Ten Years On



Stephen Downes National Research Council Canada

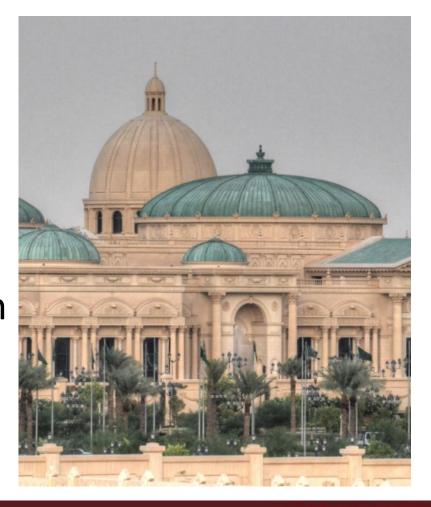
July 2008

http://www.downes.ca/future/

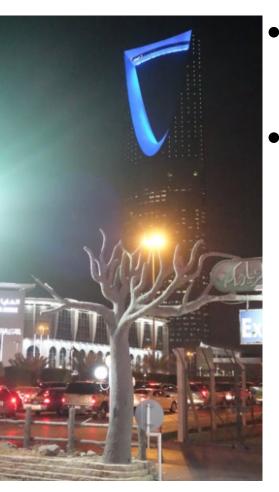
http://www.downes.ca/me/mybooks.htm

#### How do we predict the future?

- We predict the future the way we understand the past: by reading the signs
- This is also how we understand the world in general, and how we learn



### 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')

#### The learning process is interactive

- Aggregate
- Remix
- Repurpose
- Feed Forward



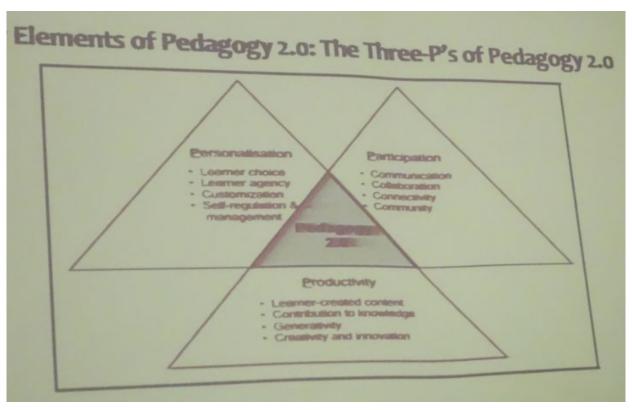
To teach is to model and demonstrate, to learn is to practice and reflect

## This is the basis of our approach to learning technologies

- 1999 Learning communities
- 2001 The learning marketplace
- 2004 E-Learning 2.0
- 2005 Learning Networks / Connectivism
- 2005 Open Educational Resources
- 2008 MOOC
- 2010 Personal Learning Environments
- 2013 LPSS

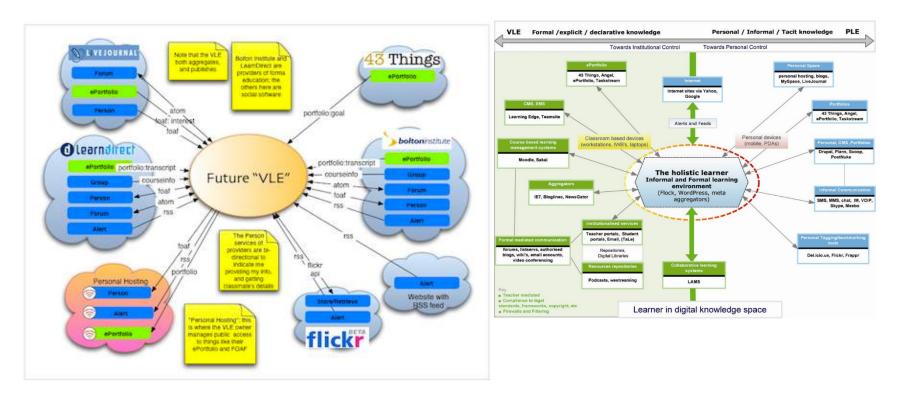


### You can also see it in Pedagogy 2.0



Bader A. Alsaleh - <a href="http://halfanhour.blogspot.com/2014/09/bader-alsaleh-september-17-riyadh.html">http://halfanhour.blogspot.com/2014/09/bader-alsaleh-september-17-riyadh.html</a>

### The design is based on putting the learner at the center



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

# This is known generally as the 'Personal Learning Environment' (PLE)

- The PLE as concept
- Web 2.0 supported PLEs
- Game-based approaches and 'quantified self'
- Mobile learning
- The PLE as an assessment tool

http://en.wikipedia.org/wiki/History of personal learning environments
http://pleconf.org/2013/files/2014/07/v3.0 PLE Conference2013 Research
t BeuthUniversity MonashUniversity.pdf

Images: Ebrahim Rahimi, Jan van den Berg, Wim Veen; Benedikt S. Morschhe Verónica Rivera-Pelayo, Athanasios Mazarakis, Valentin Zacharias

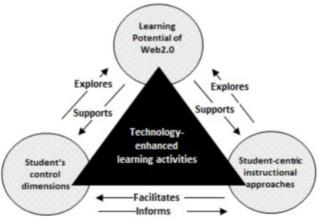


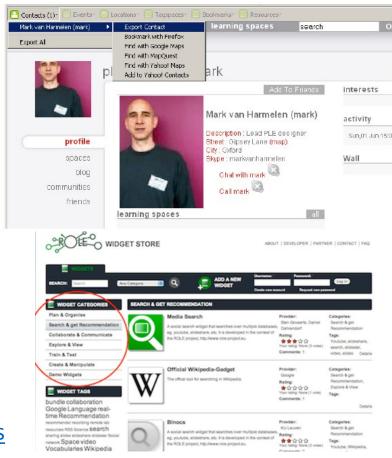
Figure 1: A conceptual framework for developing Web 2.0 PLEs



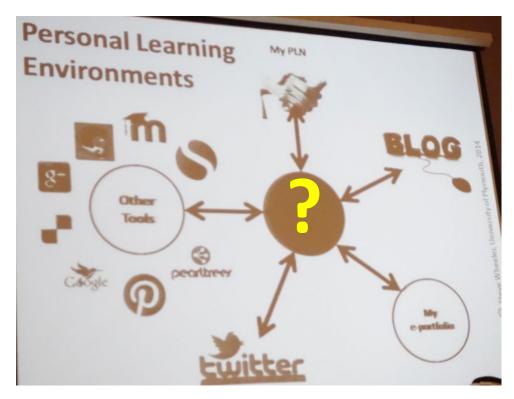
#### Relevant Projects

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

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

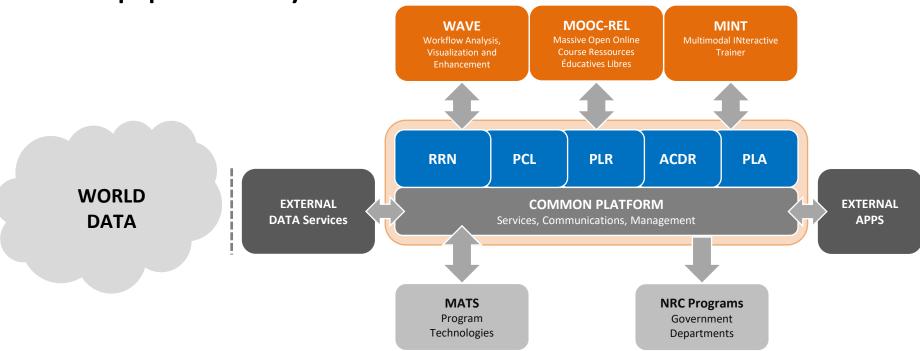


### We are focused at the technology at the center



http://halfanhour.blogspot.com/2014/09/steve-wheeler-september-17-riyadh-notes.html

Learning and Performance Support Systems



- It's a network of personal learning environments...
- ... connected to a large array of learning services

### Core Technology Development Projects

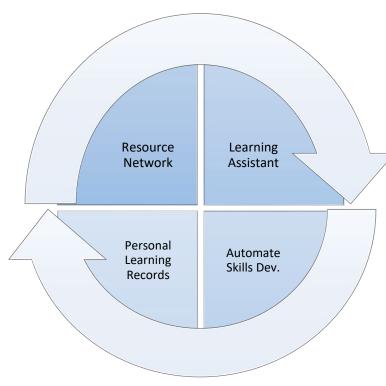
 Learning services network and marketplace

 Automated skills development and recognition

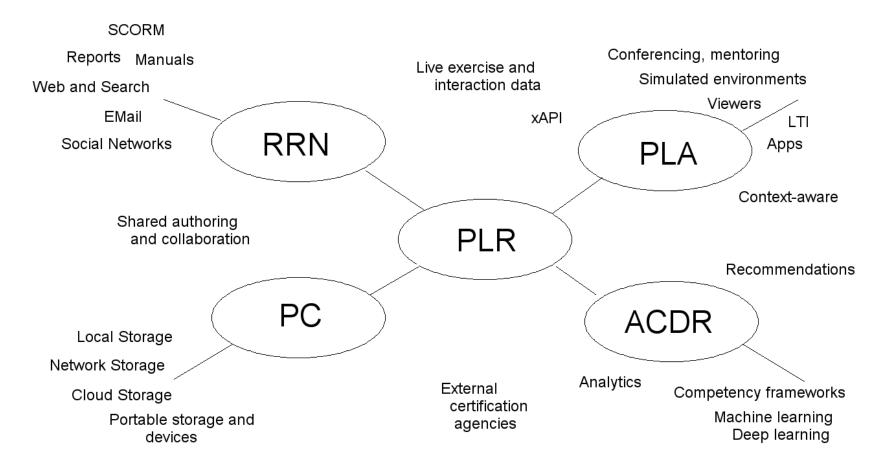
 Lifetime management of learning and training records and credentials

 Personal learning assistant to view, update and access training

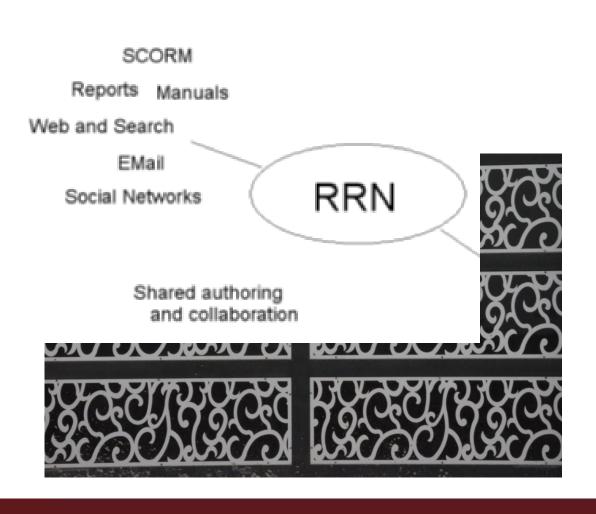
Learning as a cloud service and deep integration with external systems



#### LPSS Core Projects

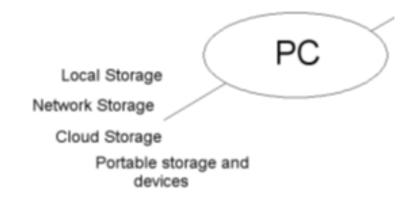


#### Resource Repository Network



- Manage and discover list of sources and resources
- Maintain authentication and credentials
- Support APIs and metadata standards
- Gather, analyze and sort resources and/or metadata

#### Personal Cloud

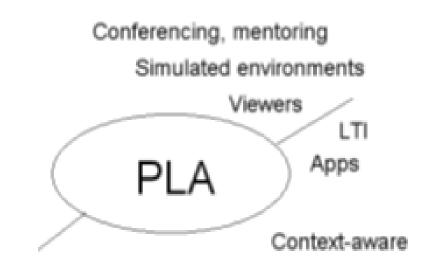


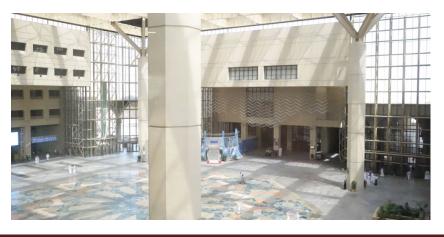


- Manage list of local and remote storage systems
- Maintain security, encryption, authentication and credentials
- Include local or personal device storage
- Manage and synchronize resource sets and data

#### Personal Learning Assistant

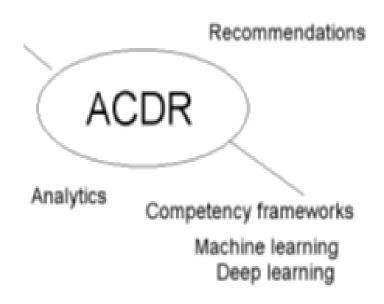
- Collect contextual information for system
- Display resources of various formats, inclusing SCORM, LTI, etc.
- Support (scaffolded) authoring environments
- Project LPSS capacity into external software and devices





## Competency Recognition and Development

- Import or create competency definitions
- Analyze interactions for skills and learning gaps
- Support development of learning plans
- Provide resource and service recommendations





#### Personal Learning Record

Live exercise and interaction data

**XAP** 



External certification agencies

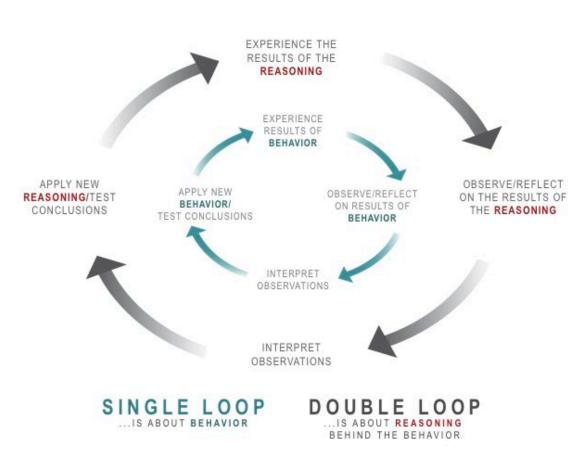
- Collect full record of interactions with all resources, external systems
- Support learning activity data exchange formats (eg. xAPI)
- Collect and present a person's personal portfolio
- Display certifications and credentials (eg. badges)
- Maintain 3<sup>rd</sup> party certification

## Implementation – from MOOC to Personal Learning

- MOOC-REL (OIF)
- ALECSO
- MINT
- SHARE
- Badges
- Simulator
- Workplace T&D



#### Implementation Projects



Ultimately, the objective is to support individual learning in a network

http://integralleadershipmanifesto.com/manifesto/making-subject-object/

#### Launch

- Limited beta starting at the end of September
- Hosted service offered at http://lpss.me
- Slow roll-out of capacity over next 18 months
- Development of partnerships and capacity building projects

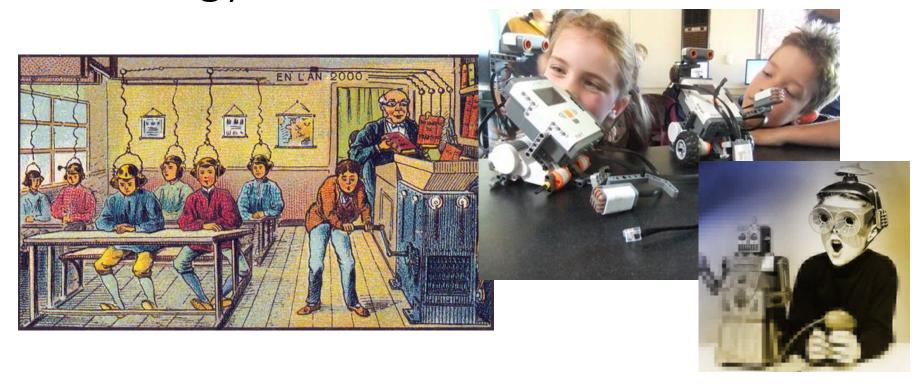


### Why is this important?

- Because technology is not just a tool
- It gives us the capacity to do new things (the 'affordances argument')
- It represents an extension of our perceptions (the McLuhan argument)
- "We shape technology, and then technology shapes us"



# What kind of learner we become depends on what kind of learning technology we choose



http://singularityhub.com/2012/10/15/19th-century-french-artists-predicted-the-world-of-the-future-in-this-series-of-postcards/http://www.alter-inc.com/wearable.html
http://www.keithcotps.sa.edu.au/Learning.htm



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