

Learning with Open Resources

Stephen Downes

Beirut, Lebanon, November 9, 2016



What can we do with open resources?

Some Case Studies

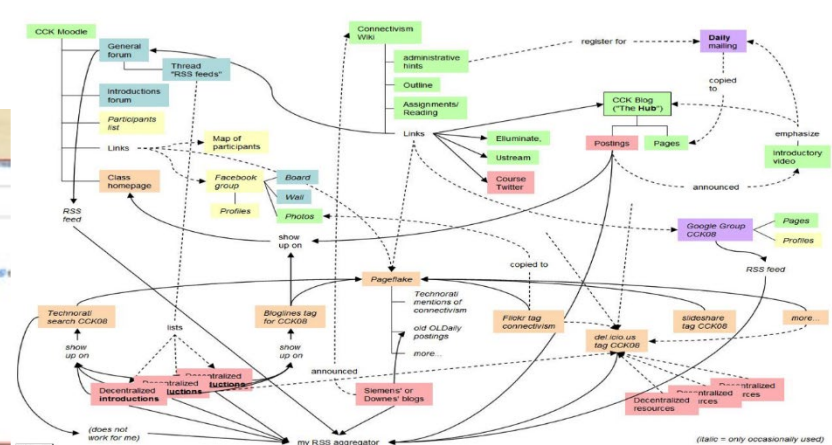


MOOC – CCK08



2008: CCK08
Stephen Downes, George Siemens
The First Massive Open Online Course (MOOC)

http://ltc.umanitoba.ca/wiki/Connectivism_2008



<https://sites.google.com/site/themoocguide/3-cck08---the-distributed-course>

OIF – MOOC-REL

REL 2014 - Pour une éducation libre

[ACCUEIL](#) [VOTRE COMPTE ▼](#) [COMPTES RENDUS ▼](#) [PARTICIPER ▼](#) [SYNDICATION RSS ▼](#) [ARCHIVES ▼](#)

Vous n'êtes pas connecté(e). [\[Connexion\]](#) - [\[Inscription\]](#)

Réutiliser, retravailler,
recombinaison, redistribuer



INTRODUCTION ▼

1. DU CLOM
CONNECTIVISTE ET
FONCTIONNEMENT DE CE
COURS ▼

Réutiliser, Retravailler, Recombiner, Redistribuer – 4R des REL pour une Éducation libre

Bienvenue à votre Cours en Ligne Ouvert et Massif (CLOM) de l'Organisation internationale de la Francophonie portant sur les ressources éducatives libres (REL).

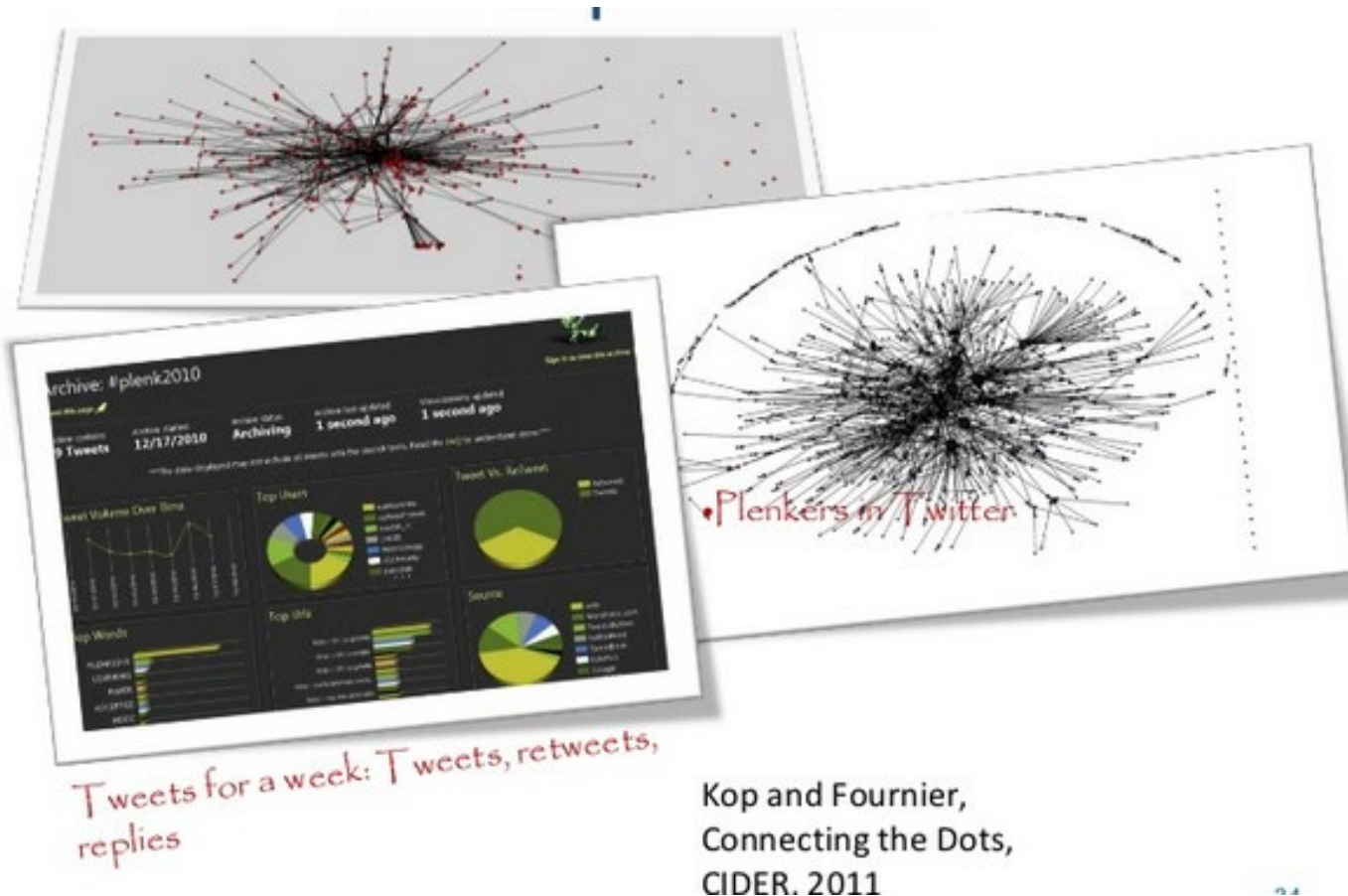
Le cours débute le 3 mars 2014 et dure neuf semaines consécutives. Si vous n'êtes pas déjà inscrit(e), faites-le tout de suite pour recevoir le Bulletin de nouvelles quotidiennes et bénéficier du droit de commentaires/discussion dans le site.

Introduction au CLOM REL 2014

Vous trouverez ci-dessous une courte vidéo qui explique le contexte du présent cours. Nous vous

<http://rel2014.mooc.ca/>

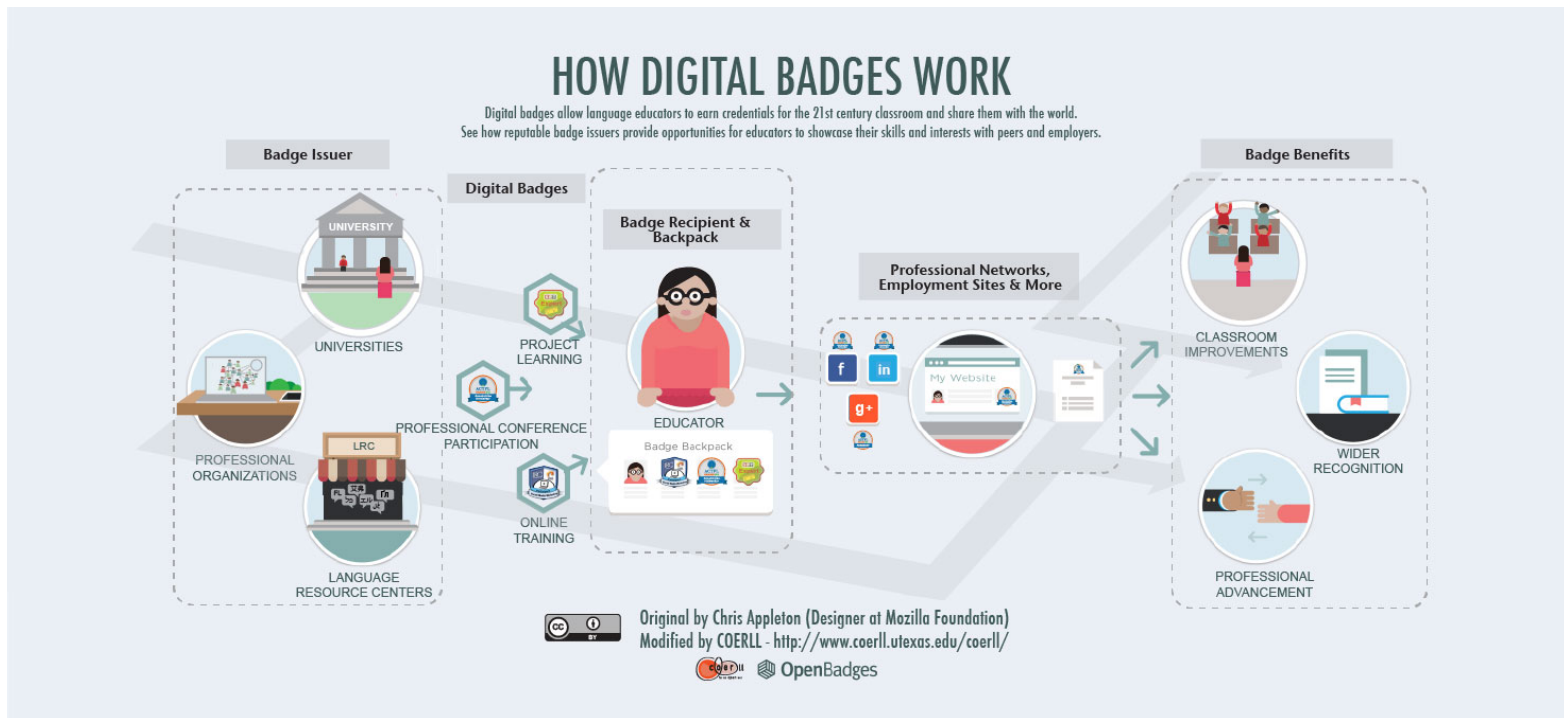
Plearn – Importance of the Graph



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

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

PCO Badges for Learning



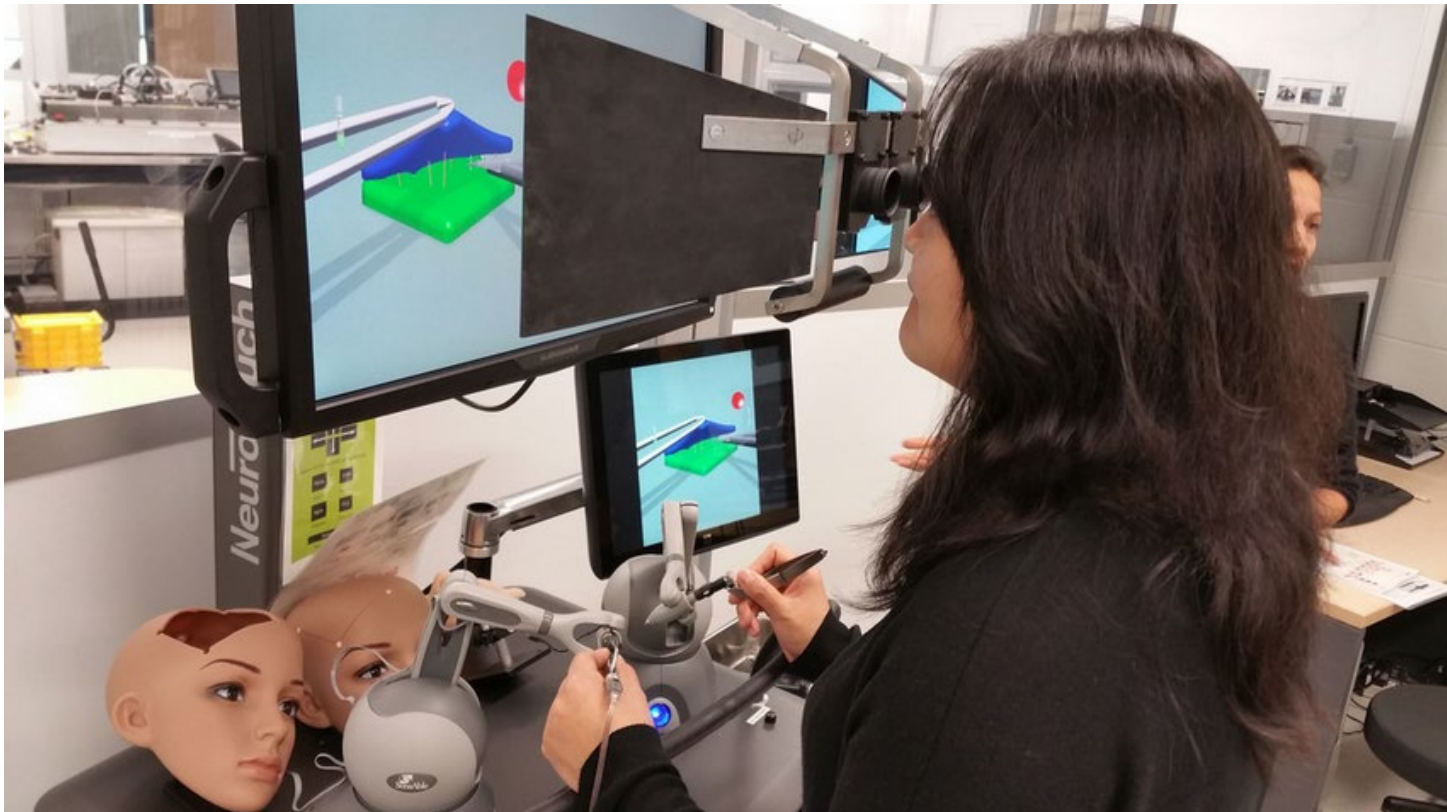
<http://www.downes.ca/post/63738>

ALECSO – Capacity Building



<http://www.downes.ca/presentation/337>

Collecting xAPI from Med Sims



https://www.flickr.com/photos/stephen_downes/15710336207/

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

Concierge OMS

 Government of Canada / Gouvernement du Canada

Canada.gc.ca | Services | Departments | Français

Concierge Service

Canada

Search

Home | About us | Find programs | Find facilities | My concierge

Register | Log in

Home → Your guide to innovation

Your guide to innovation

Helping Canadian enterprises find and access programs and services that support business innovation.



How can we help you?

Go

Find a program that meets your needs



Create an account to get the benefits to support you & your business!



<https://concierge.portal.gc.ca/>

TBS Micromissions



<http://www.theglobeandmail.com/news/politics/canadian-heritage-shows-how-public-service-seeks-to-foster-innovation/article29040565/>

The ‘Open’ in Open Learning

- In the beginning... Open Archives

“If governments ignored publisher lobbying and [did the arithmetic properly](#), they would immediately see that the interests of publicly funded research [vastly eclipse](#) those of the research publishing industry.” – Stevan Harnad

The Subversive Proposal at 20. Richard Poynder, Open and Shut?

<http://poynder.blogspot.ca/2014/06/the-subversive-proposal-at-20.html>

Budapest Open Access Initiative, 2001

<http://www.budapestopenaccessinitiative.org/background>


What are OERs?

“OERs range from textbooks to curricula, syllabi, lecture notes, assignments, tests, projects, audio, video and animation.”



<http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/open-educational-resources/what-are-open-educational-resources-oers/>

How OERs (Really) Begin

156,590,606 lessons delivered
KHANACADEMY

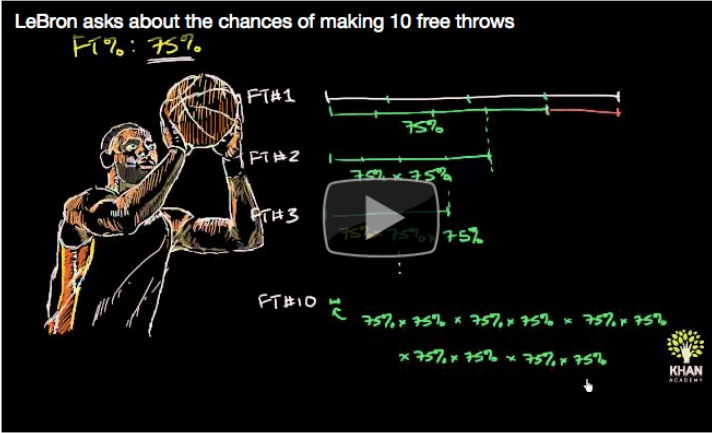
Search for a video or topic

WATCH ▾ PRACTICE COACH VOLUNTEER ABOUT

Login Donate

LeBron asks about the chances of making 10 free throws

FT%: 75%



FT#1 75%
FT#2 75% x 75%
FT#3 75% x 75% x 75%
FT#10 75% x 75% x 75% x 75% x 75% x 75% x 75% x 75% x 75% x 75%

KHANACADEMY

Watch. Practice.

Learn almost anything for free.

With over 3,200 videos on everything from arithmetic to physics, finance, and history and hundreds of skills to practice, we're on a mission to help you learn what you want, when you want, at your own pace.


Watch a VideoTake a Challenge

Teacher or administrator? Explore our Teacher Resources.

Like897kSendTweet28.4K+118k

Enter your email to learn about new courses. Get Updates

New & Noteworthy

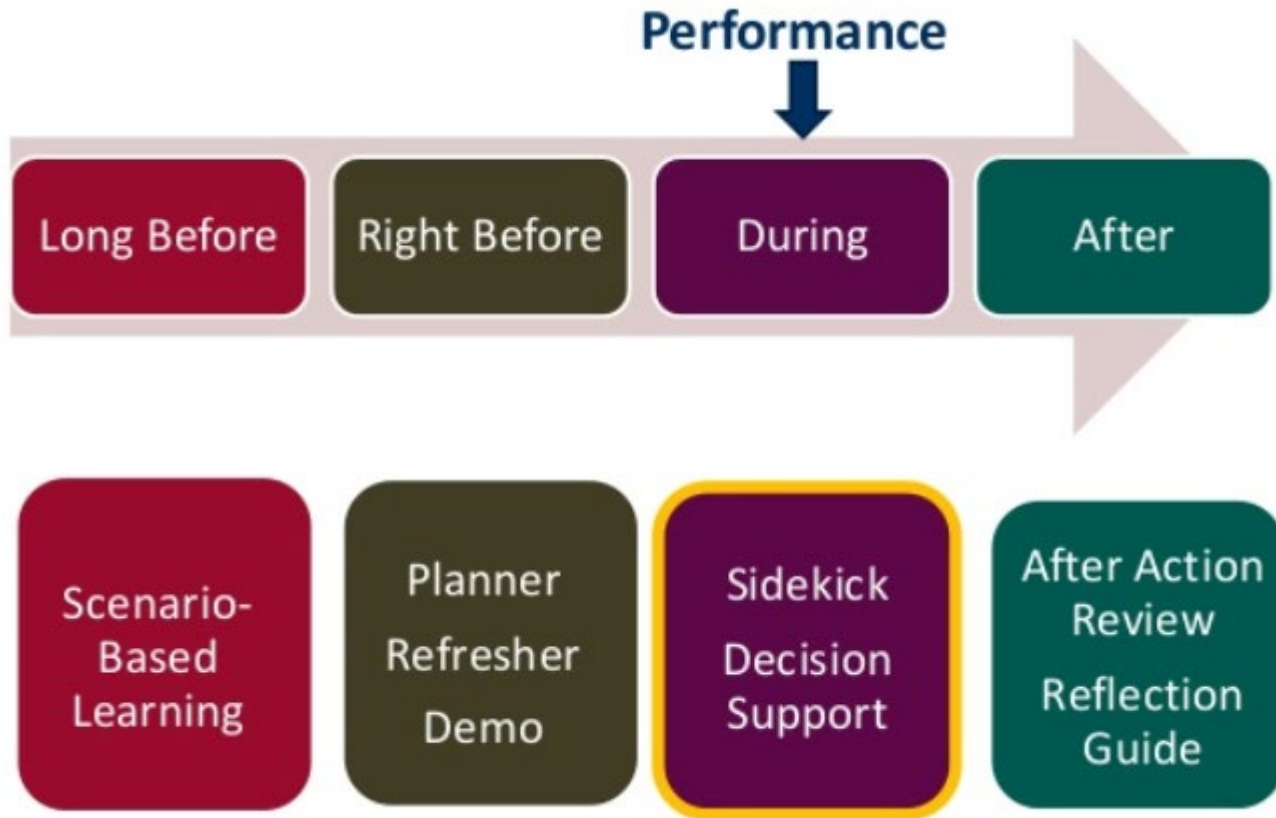


Browse our library of over 3,200 educational videos...

Jump to topic: Math ▾ Science ▾ Finance & Econ. ▾ Humanities ▾ Test Prep ▾ Talks and Interviews

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

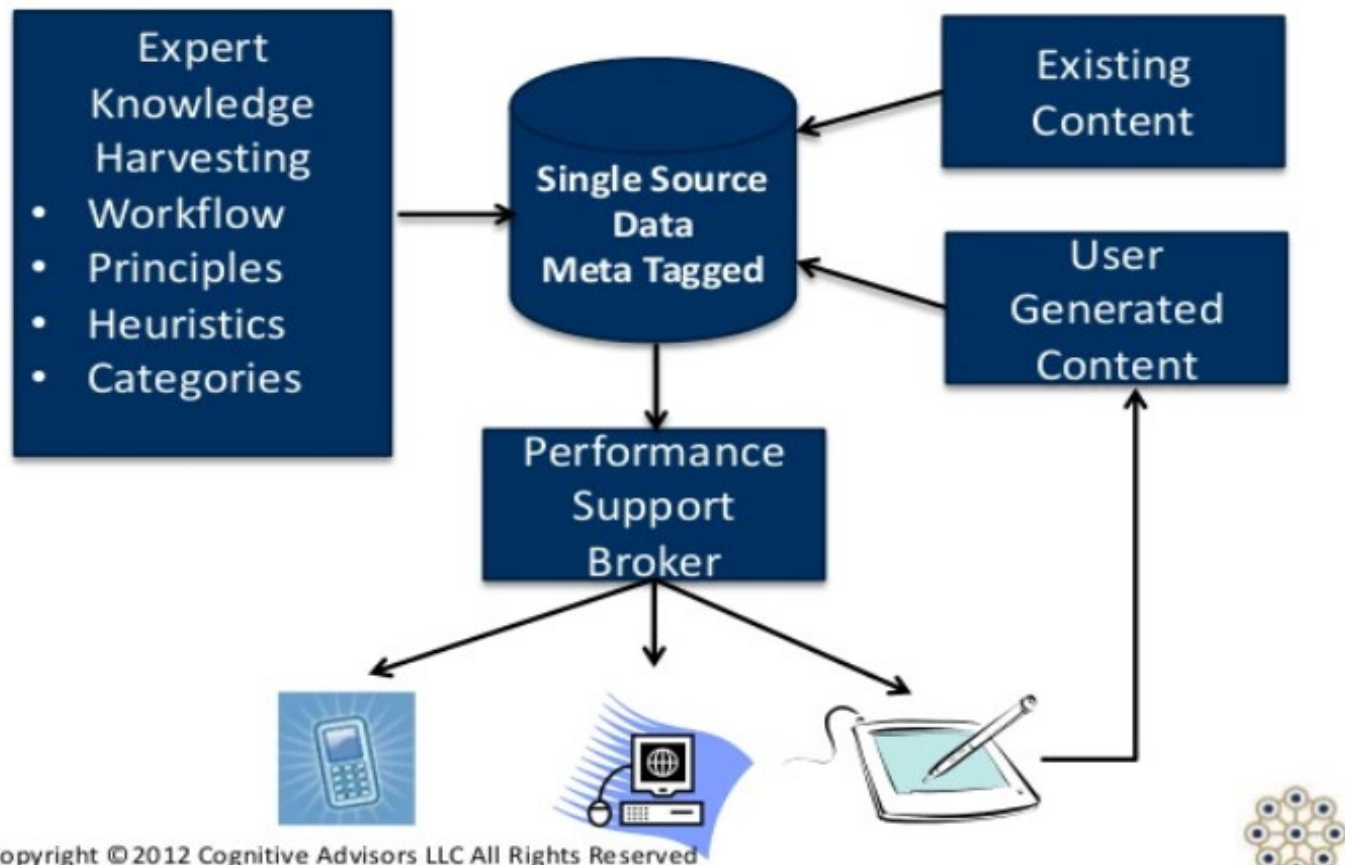
Performance Support



Copyright © 2012 Cognitive Advisors LLC All Rights Reserved



User-Generated OERs

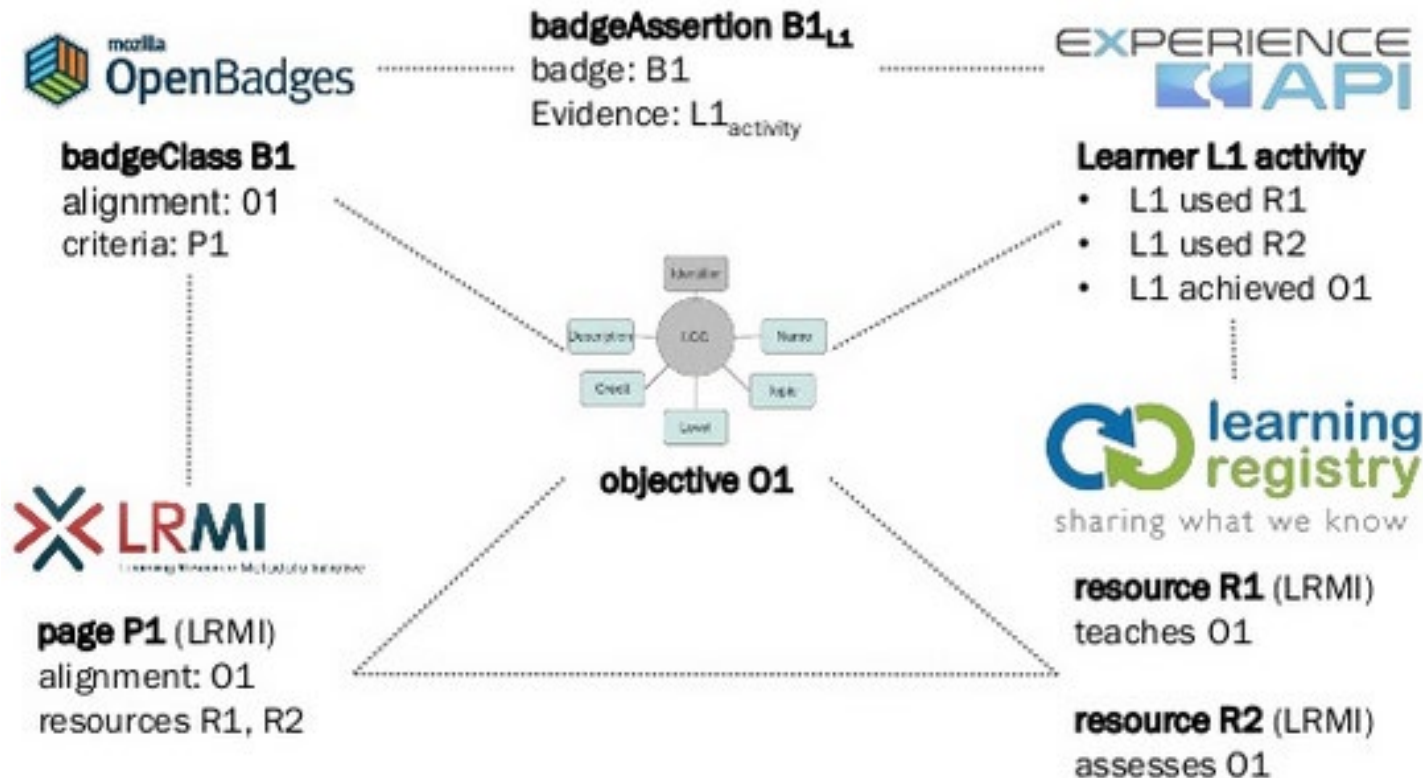


Working Out Loud



<http://johnstepper.com/2014/01/04/the-5-elements-of-working-out-loud/>

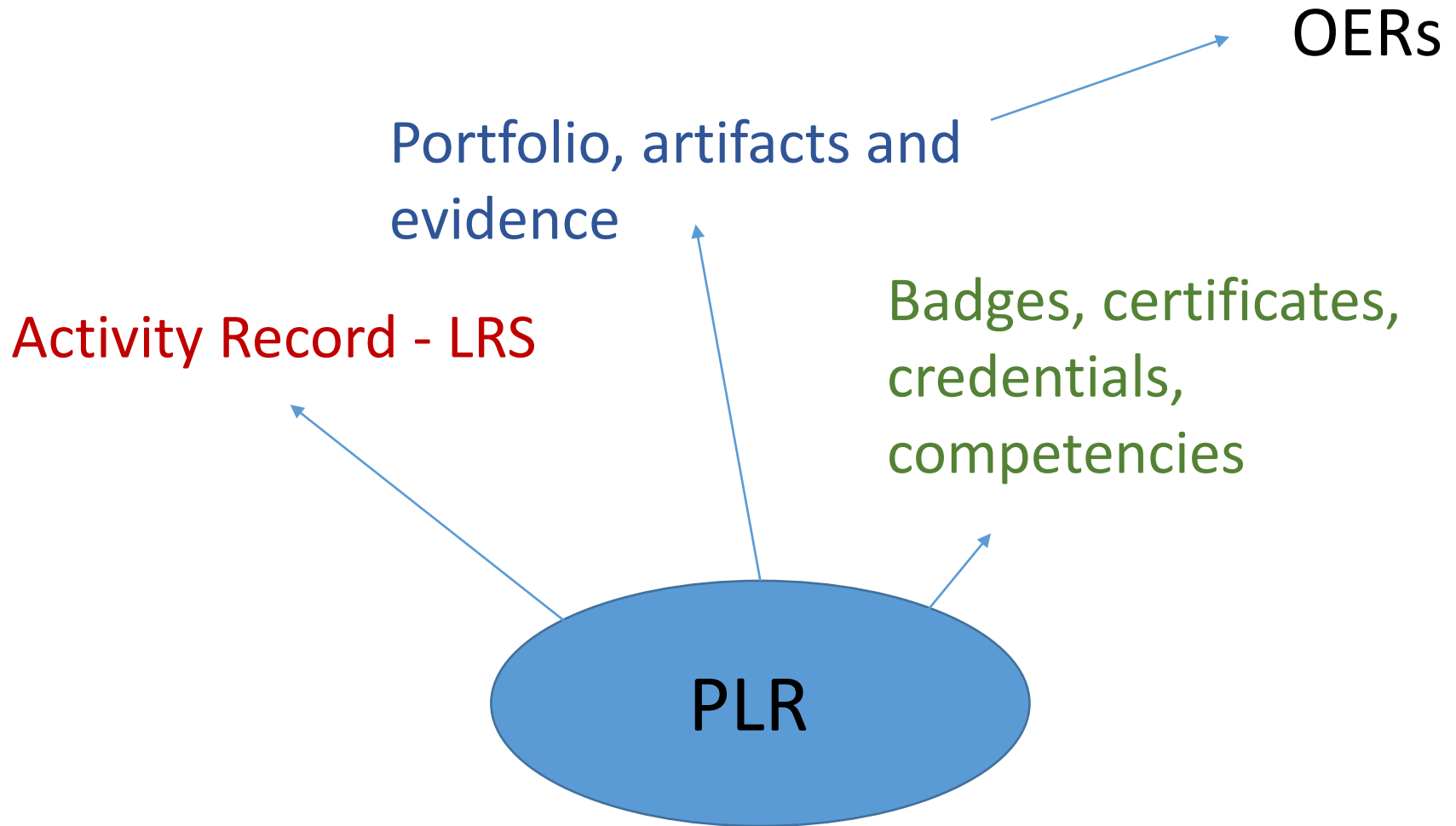
Personal Assistant for Learning



<http://www.adlnet.org/adl-initiative-baa-new-submission-window-open-for-personal-assistant-for-learning-pal-proposals-2/index.html>

<http://www.slideshare.net/damonregan/regan-tla-infrastructureforfutureoflearningsintice2013>

Personal Learning Record



Informal OER Ecosystem



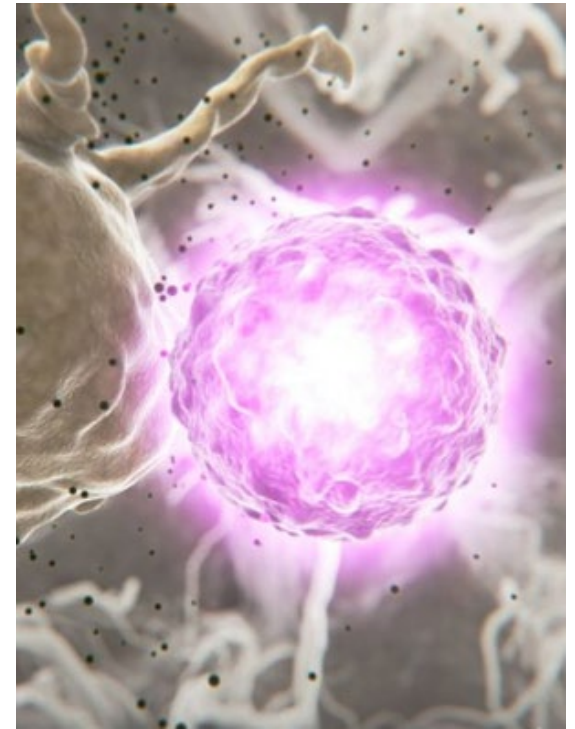
Creating Live OERs



The Open Virus

Martin Weller:

“It is no coincidence that many of the MOOC pioneers had also been early adopters of open access, active bloggers, and advocates of open licenses. Creating open courses seemed the next logical step



The Open Virus, Martin Weller, The Ed Techie
<http://nogoodreason.typepad.co.uk/nogoodreason/2014/05/the-open-virus.html>

The Open Research Network

Beginnings of a proposal:

“The real value of repositories is when they are interconnected to provide unified access to research materials for researchers around the world.”



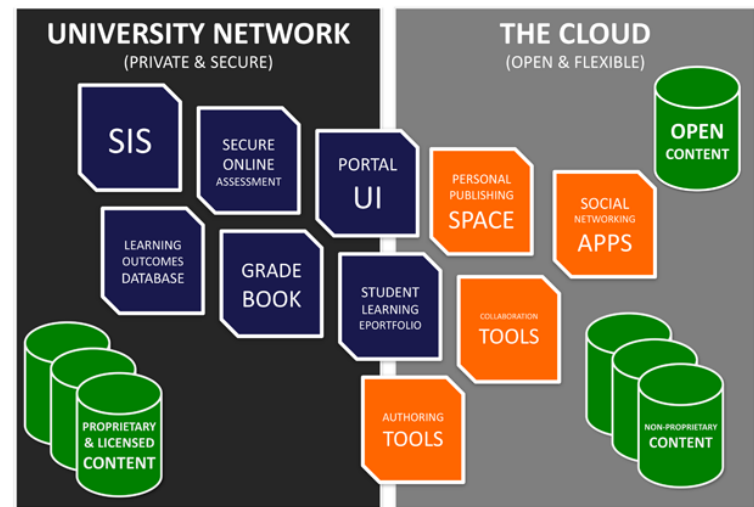
Aligning Repository Networks Meeting 2014, Confederation of Open Access Repositories (COAR)

<https://www.coar-repositories.org/files/Aligning-Repository-Networks-Meeting-Report.pdf>

The Open Learning Network

Bridging the LMS and the PLE:

“The OLN is built on web services from the ground up. This facilitates authentication federation and data portability. It also allows for granular authentication and rights management within and across OLN modules.”

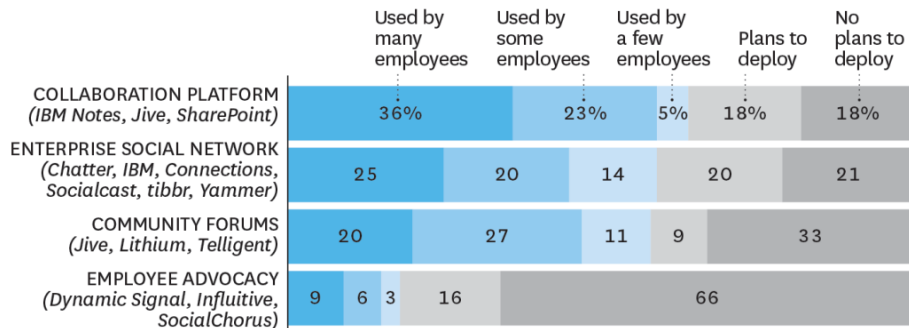


Social Networks

Why nobody is using the corporate social network

“Employees are smart—they won’t waste their time on stunts that are purely for show. Think about the types of engagements you want to have in digital channels—with whom, about what, and when.”

Corporate Social Networks Just Aren't That Popular



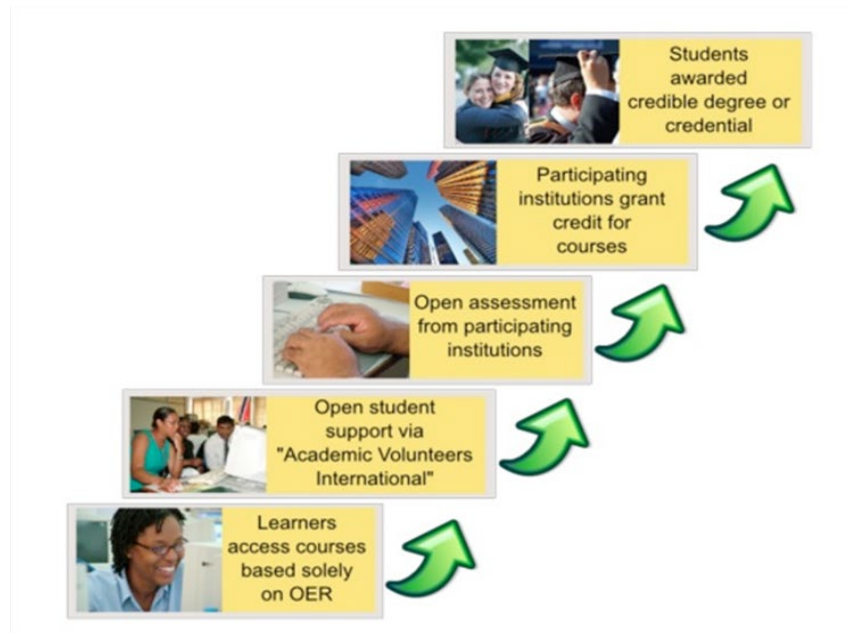
SOURCE: ALTIMETER GROUP SURVEY OF 55 COMPANIES WITH MORE THAN 250 EMPLOYEES (2014)

© HBR.ORG

Charlene Li, Harvard Business Review

<https://hbr.org/2015/04/why-no-one-uses-the-corporate-social-network>

The Many Names of Open



Taylor, J.C. 2007. Open courseware futures: Creating a parallel universe. e-Journal of Instructional Science and Technology (e-JIST), Vol 10, No. 1. Online: http://www.ascilite.org.au/ajet/e-jist/docs/vol10_no1/papers/full_papers/taylorj.htm

Open Access

- Originated in Open University, Athabasca University
- No formal requirements for course admission
- Issues: preparedness, completion



<http://www.athabascau.ca/>

Open Access Network



<http://www.slideshare.net/knconsultants/open-access-network-plan-b-dlf-forum-2015>

Open Access Social Network

They Loved Your G.P.A. Then They Saw Your Tweets

“Students’ social media and digital footprint can sometimes play a role in the admissions process,” says Christine Brown, the executive director of K-12 and college prep programs at Kaplan Test Prep



Natasha Singer, New York Times

<http://www.nytimes.com/2013/11/10/business/they-loved-your-gpa-then-they-saw-your-tweets.html>

Open Source

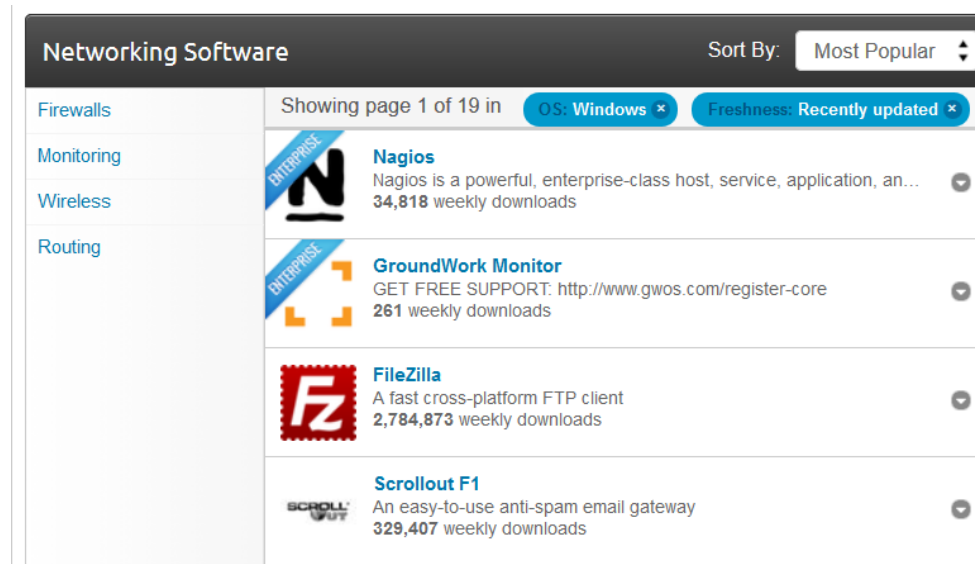


Open Source Definition

“Open source software is software that can be freely used, changed, and shared (in modified or unmodified form) by anyone. Open source software is made by many people, and distributed under licenses that comply with the Open Source Definition.”

Open Source Network

- SourceForge <http://sourceforge.net/directory/system-administration/networking/os:windows/freshness:recently-updated/>
- GitHub <https://github.com/opensource-socialnetwork/opensource-socialnetwork>



The screenshot shows the SourceForge directory for Networking Software. The interface includes a sidebar with categories: Firewalls, Monitoring, Wireless, and Routing. The main content area displays a list of software packages, sorted by 'Most Popular'. The list includes Nagios, GroundWork Monitor, FileZilla, and Scrollout F1, each with its logo, description, and weekly download count. The Nagios entry is marked as 'ENTERPRISE'.

Category	Software Name	Description	Weekly Downloads
Monitoring	Nagios	Nagios is a powerful, enterprise-class host, service, application, an...	34,818
	GroundWork Monitor	GET FREE SUPPORT: http://www.gwos.com/register-core	261
	FileZilla	A fast cross-platform FTP client	2,784,873
	Scrollout F1	An easy-to-use anti-spam email gateway	329,407

Open Source Social Network

eXo and Slack

“eXo Platform is an out-of-the-box social intranet solution. Rich collaboration features such as wikis, forums, calendars and documents are smartly integrated around activity streams, social networking and workspaces.”

<http://www.exoplatform.com/>



Is Slack the new LMS?

“Learning is constructed by what activities the students carry out; learning is about what they do, not about what we teachers do.”

The screenshot shows a Slack channel interface for 'Psychology in Cinema'. The left sidebar contains navigation links like 'My home', 'Site pages', 'My profile', and 'Current course'. The main area displays a 'Course welcome' message with movie posters for 'Schindler's List', 'The Mindy Project', and 'The Mindy Project'. Below the message is a 'Message from your tutor' section with links to 'Announcements from your tutor', 'Prior Knowledge assessment', 'Factual recall test', 'Course chat', and 'Let's make a date!'. The right sidebar shows 'QUIZ RESULTS' for a 'Factual recall test' with a table of top grades, a 'Tweets' section with a tweet about 'IMDb TV', and a 'LATEST NEWS' section with links to 'Group Project', '24 JUL 11:28 Heather Hayes', and 'Screenings Schedule'.

The 3 highest grades:	
1. Brenda Vasquez	100%
2. Brian Franklin	80%
3. Gary Viquez	70%

- Elgg - <https://elgg.org/>

Mathias Emrose, Medium | The Synapse

<https://medium.com/synapse/is-slack-the-new-lms-7d1c15ff964f>

Open Content

- Originally thought of as similar to open source
- Creative Commons licenses – by, nc, sa, nd clauses
- Open access versus open use



Open Content Network

- SAP Community Network

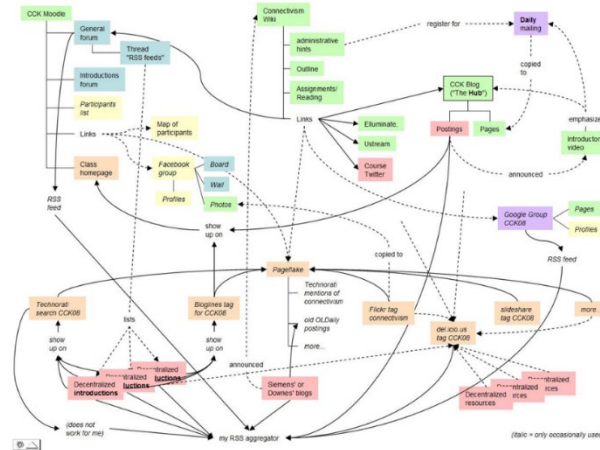
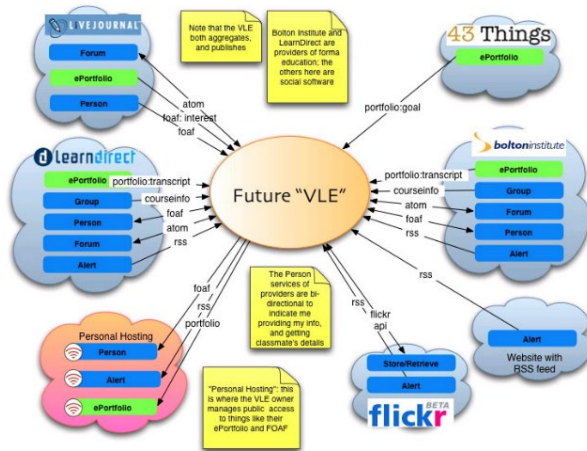
“In the b1411 release, SuccessFactors introduced the *Open Content Network* for the SuccessFactors Learning product. This extension of the LMS allows for integration with a few select MOOC providers to incorporate a vendor’s courses into the organization’s LMS. This can allow organizations to present online learning courses from MOOC providers to employees within the LMS directly.”

<http://scn.sap.com/community/erp/hcm/blog/2015/03/05/craving-more-content-take-a-bite-out-of-the-open-content-network-in-successfactors-learning>

- EMMA – European MOOC Aggregator -

<http://platform.europeanmoocs.eu/>

Open Content Social Network



- Known

<https://withknown.com/>

Open Educational Resources

- UNESCO Definition

“Open Educational Resources (**OERs**) are any type of educational materials that are in the public domain or introduced with an open license. The nature of these open materials means that anyone can legally and freely copy, use, adapt and re-share them.”

<http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/open-educational-resources/what-are-open-educational-resources-oers/>



OER Network

- Support for community-based OER process
 - integration of OER development and use within publicly supported curricula
 - use of OERs in public services and programs
- OER Commons <https://www.oercommons.org/>
- EdWeb - <http://home.edweb.net/>
- Utopia

Reading and networking will become one and the same thing “for instance, when a document in Utopia is opened, "a sidebar opens up on the right-hand side and fills with relevant data from external databases and services like Mendeley, SHERPA/RoMEO, and Wikipedia.” <http://utopiadocs.com>



OER Social Network

"Colearning" - Collaborative networks for creating, sharing and reusing OER through social media...
OpenScout



Alexandra Okada,

http://presentations.ocwconsortium.org/uk2012_224_okada_collaborative_networks/

Open Instruction

- “Open Instruction – here we refer to the ‘lecture’ portion of open learning, or rather, the internet analogue of the original lecture described at the top of this post, a series or sequence of activities undertaken by experts...” http://p2pfoundation.net/Open_Instruction
- Early open instruction – the Coursera course, the Wiley Wiki
- MOOCs as open instruction
- Elements of open instruction:
 - Resources
 - Lectures
 - Activities and projects

Open Instruction Network

- Open Teaching

“The Downes-Siemens course has become a landmark in the small but growing push toward ‘open teaching.’”

Marc Parry, Chronicle of Higher Education

<http://chronicle.com/article/Open-Teaching-When-the/124170/>



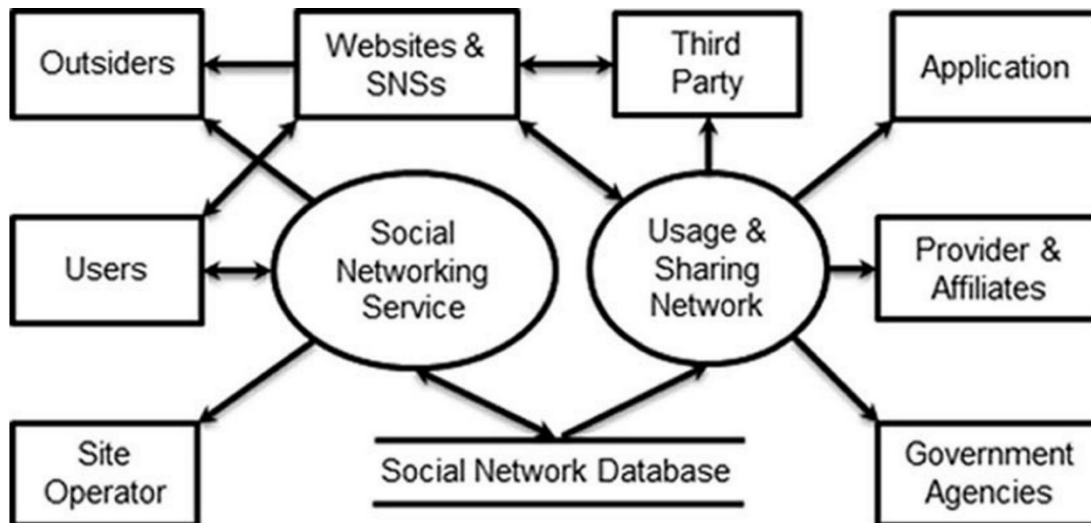
Alec Couros - Open Teaching - Network Sherpa

The concept of "network sherpa" projects the role of teacher as one who knows "the terrain", guides students, but who is also led by student interests, objectives, and knowledge.

<https://www.flickr.com/photos/courosa/3293199214/in/photostream/>

Open Instruction Social Network?

- Examples are hard to come by
- See, though, this example in health services



Open Design

- ‘Learning Design’ = the organization and structure of a course – eg., IMS LD
 - Open design – enabling participants to create their own organization and structure
 - Example: touring a city vs being taken on a tour
 - The course as ‘environment’ rather than ‘book’
 - Open design in MOOCs

Learning Design: A Handbook on Modelling and Delivering Networked Education, By Rob Koper, Colin Tattersall (2005!)

<http://jime.open.ac.uk/article/download/2005-18/262/>

Open Educational Practices

- ...the Open Educational Practices movement, developed by Germany's Ulf-Daniel Ehlers and the UK's Gráinne Conole...
- Also: Open Educational Practices and Resources

“It is important to note that current educational practices are decisive in determining whether – and how – digital educational content, tools and services will be deployed and utilised. If the prevailing practice of teacher-centred knowledge transfer remains intact, then OER will have little effect on making a difference in teaching and learning”

http://www.oodl.org/enis/Upload/docs/olcos_roadmap.pdf

Open Learning Design Network

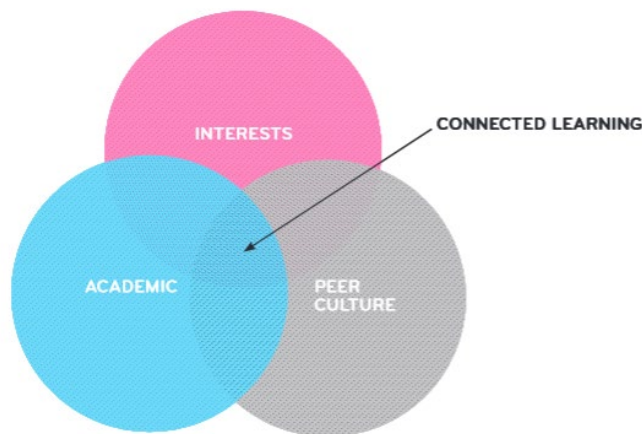
- Gráinne Conole - Cloudworks: Social networking for learning design
 - “Traditionally design has been an implicit process, how do we shift to a process of design that is more explicit and hence shareable? Different representations of design have different values and purposes, which representations are appropriate and when?”
- Engeström (2005) – “The term 'social networking' makes little sense if we leave out the objects that mediate the ties between people... The fallacy is to think that social networks are just made up of people. They're not; social networks consist of people who are connected by a shared object.”

Open Learning Design Social Network

- Connected Learning Research Network

“This model is based on evidence that the most resilient, adaptive, and effective learning involves individual interest as well as social support to overcome adversity and provide recognition.”

http://dmlhub.net/wp-content/uploads/files/Connected_Learning_report.pdf



“Connected learning centers on an equity agenda of deploying new media to reach and enable youth who otherwise lack access to opportunity.”

<http://clrn.dmlhub.net/>

Open Credentials

- The argument for closed credentials
- Badges?
- ‘You are what you do’
 - Privacy and security considerations



Open Credentials Network

- Open Badges

“Collect badges from multiple sources, online and off, into a single backpack. Then display your skills and achievements on social networking profiles, job sites, websites and more.”

“Open Badges are information-rich. Each badge has important data built in that links back to the issuer, criteria and verifying evidence.”



<http://openbadges.org/>

Open Credentials Social Network?

The screenshot shows the LinkedIn interface with the 'Skills & Endorsements' section. The top bar includes the LinkedIn logo, a search bar, and a menu icon. The 'Skills & Endorsements' section is titled 'Skills & Endorsements' and features a 'Top Skills' list on the left. Each skill is accompanied by a blue badge showing the number of endorsements (e.g., '99+', '93', '72'). To the right of the skill list is a grid of small profile pictures of people who have endorsed the skill. The skills listed are: Qualitative Research (99+), Higher Education (99+), Science (99+), Research Design (93), Artificial Intelligence (72), Lecturing (63), Social Media (60), E-Learning (56), University Teaching (44), and Data Analysis (38).

Skills & Endorsements

Top Skills

- 99+ Qualitative Research
- 99+ Higher Education
- 99+ Science
- 93 Research Design
- 72 Artificial Intelligence
- 63 Lecturing
- 60 Social Media
- 56 E-Learning
- 44 University Teaching
- 38 Data Analysis

Stephen also knows about...

37	Statistics	33	Data Mining	30	Machine Learning	24	Computer Science
24	Courses	19	Web Development	17	Programming	17	Proposal Writing
13	Human Computer...	12	HTML	10	User Experience	8	New Media
7	Perl	6	Digital Media	6	Survey Design	5	Epistemology
4	Philosophy of Mind	3	Web Applications	2	Program Evaluation		
2	Python	2	Innovation Management	2	Natural Language...	2	Pedagogy
2	Software Engineering	1	Semantic Technologies	1	Information Retrieval		
1	Physics	1	LaTeX	1	Bioinformatics	1	Simulations
1	Policy Analysis	1	Algorithms	1	Ontologies	1	Quantitative Research
1	Academic Writing						

Open Assessment?

- What is assessment? - Assessment Design Principles

“Many projects are enhancing the validity of their badges by having some expert other judge work before badges are awarded. This expert other could be a computer or a human. The projects feel that expert judgment gives the badge more weight.”

<http://iudpd.indiana.edu/Assessment+Design+Principles#>

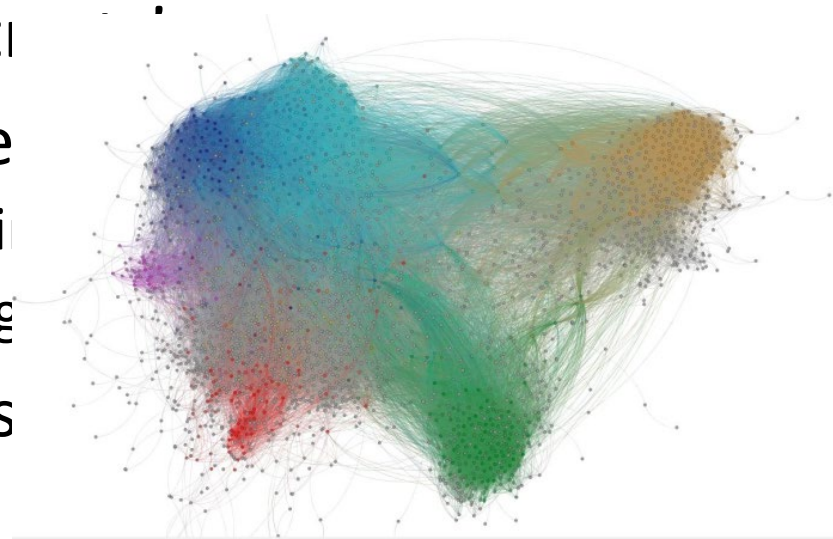
- Learning Outcomes Assessment Communities

“groups, that usually meet in person, that you can join and network about learning outcomes and assessments...”

<http://www.learningoutcomeassessment.org/LOAcommunities.htm>

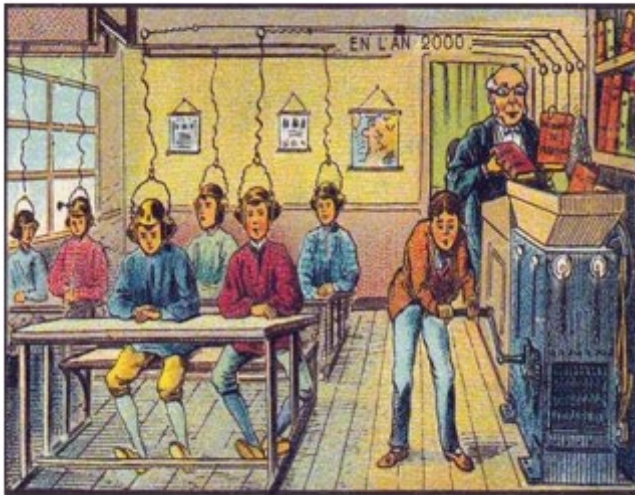
Open Assessment Networks?

- The paucity of ‘learning content’
- Assessment - criteria and measures
 - Content based – formal learning
 - Task based – informal learning
- “You decide what counts as success”

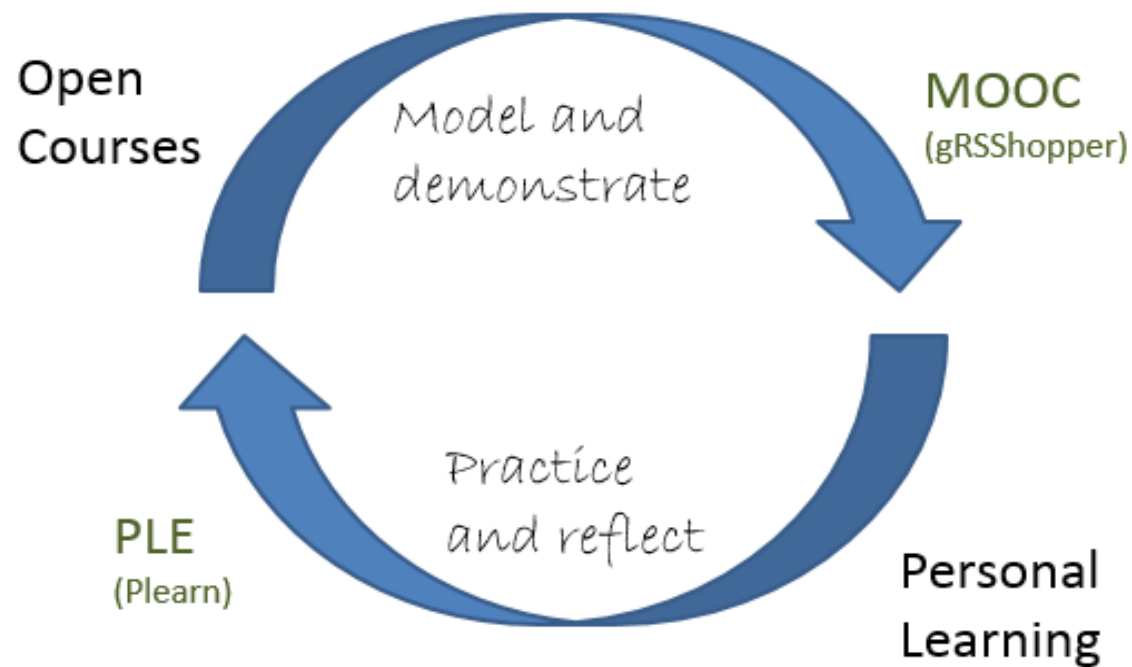


Open Assessments Social Network?

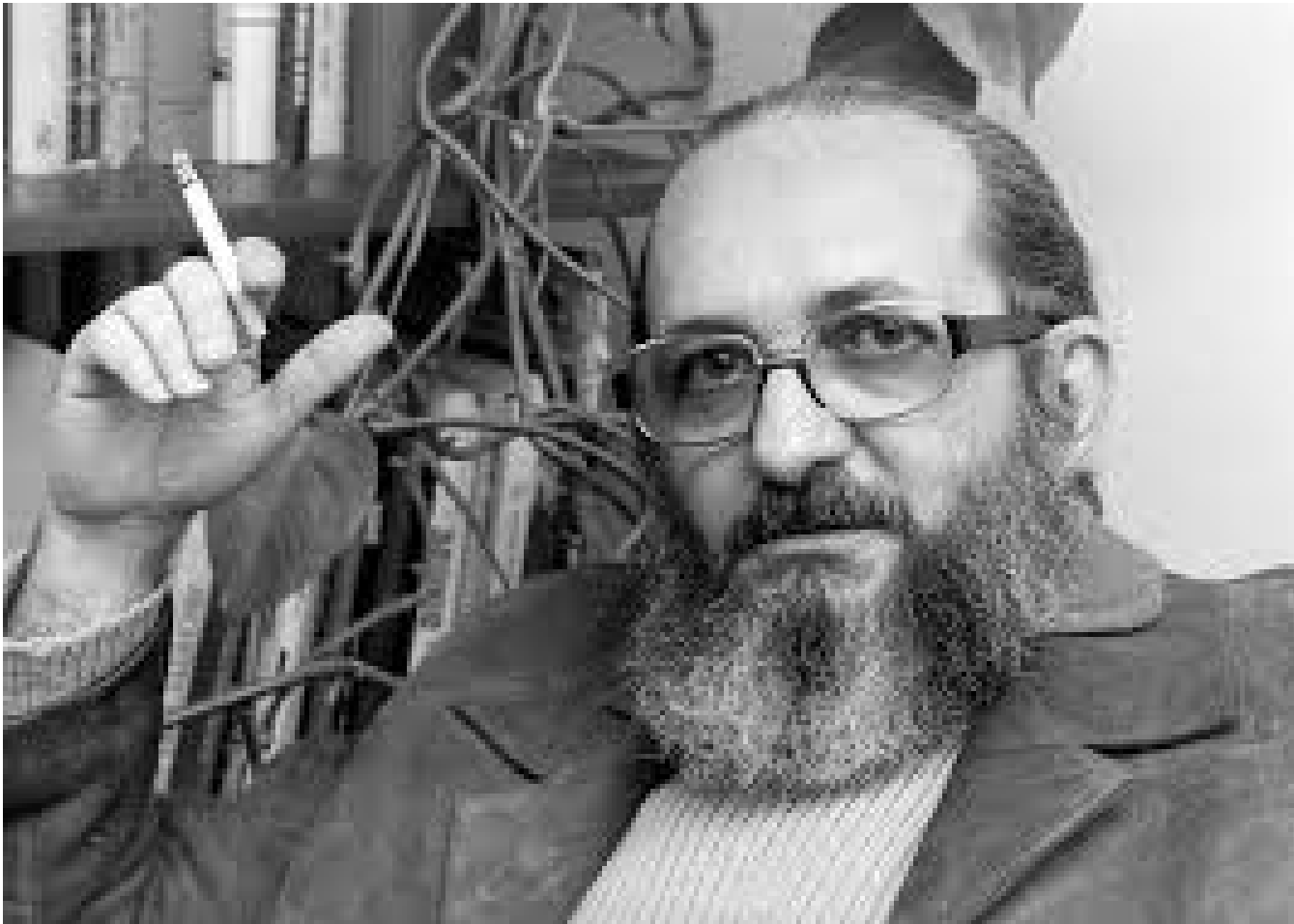
- Will what we do in social networks become the 'assessment' of the 21st century?



Open Learning Theory



Understanding Knowledge



<http://www2.webster.edu/~corbetre/philosophy/education/freire/freire-2.html>

Knowing a Pile of Facts?

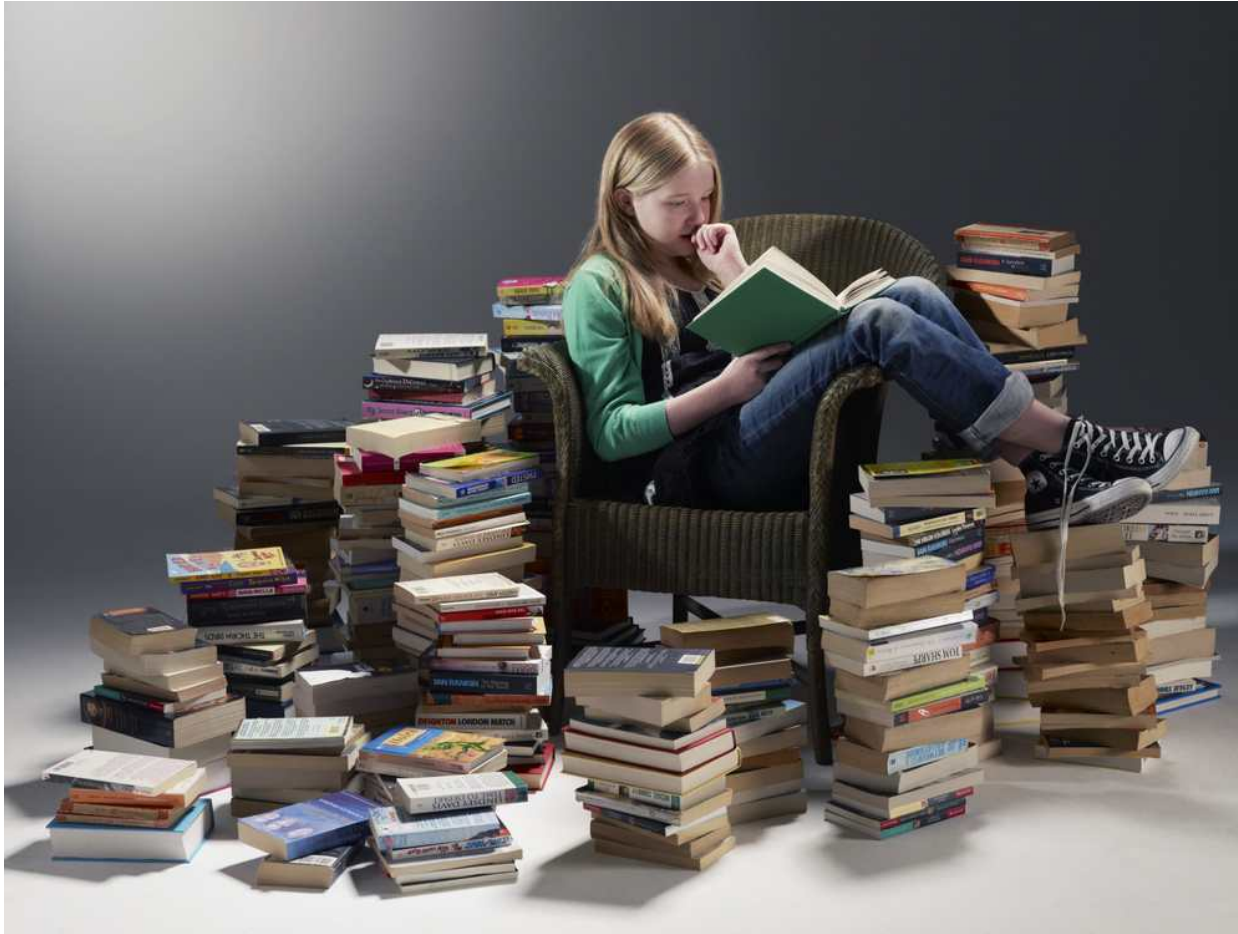
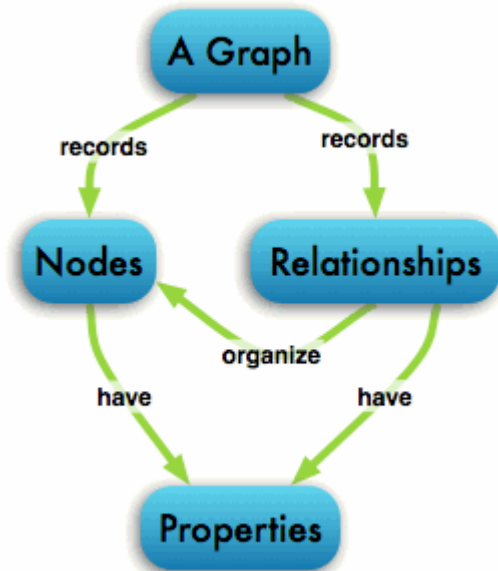
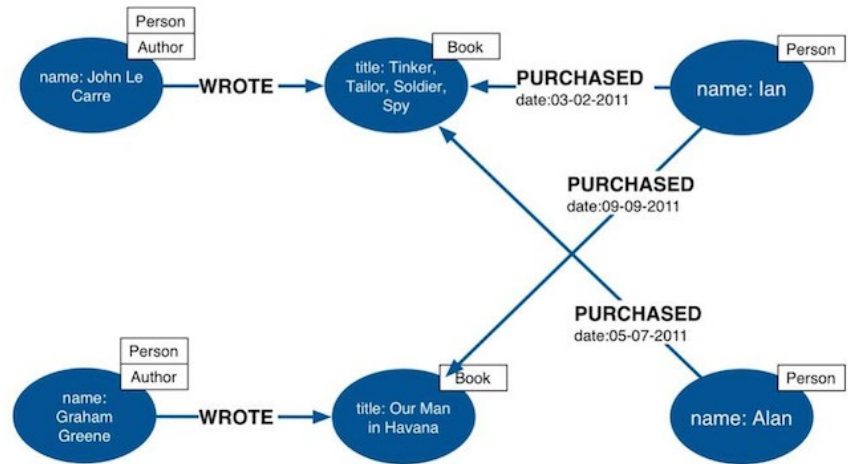


Image: <http://www.rightattitudes.com/>

The Graph Database

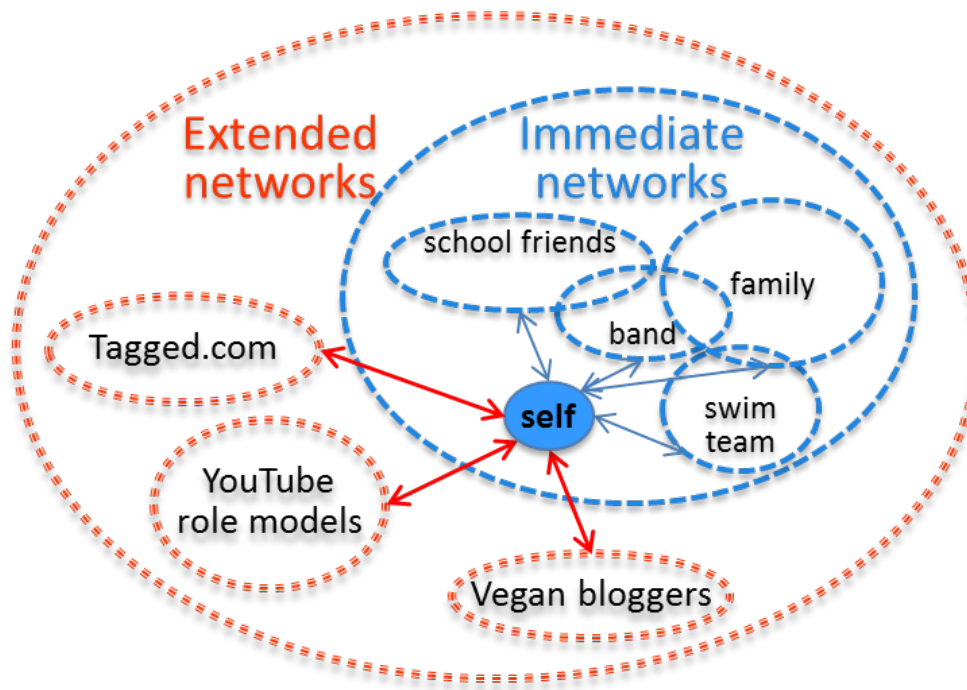


Labeled Property Graph Data Model



<http://neo4j.com/developer/graph-database/>

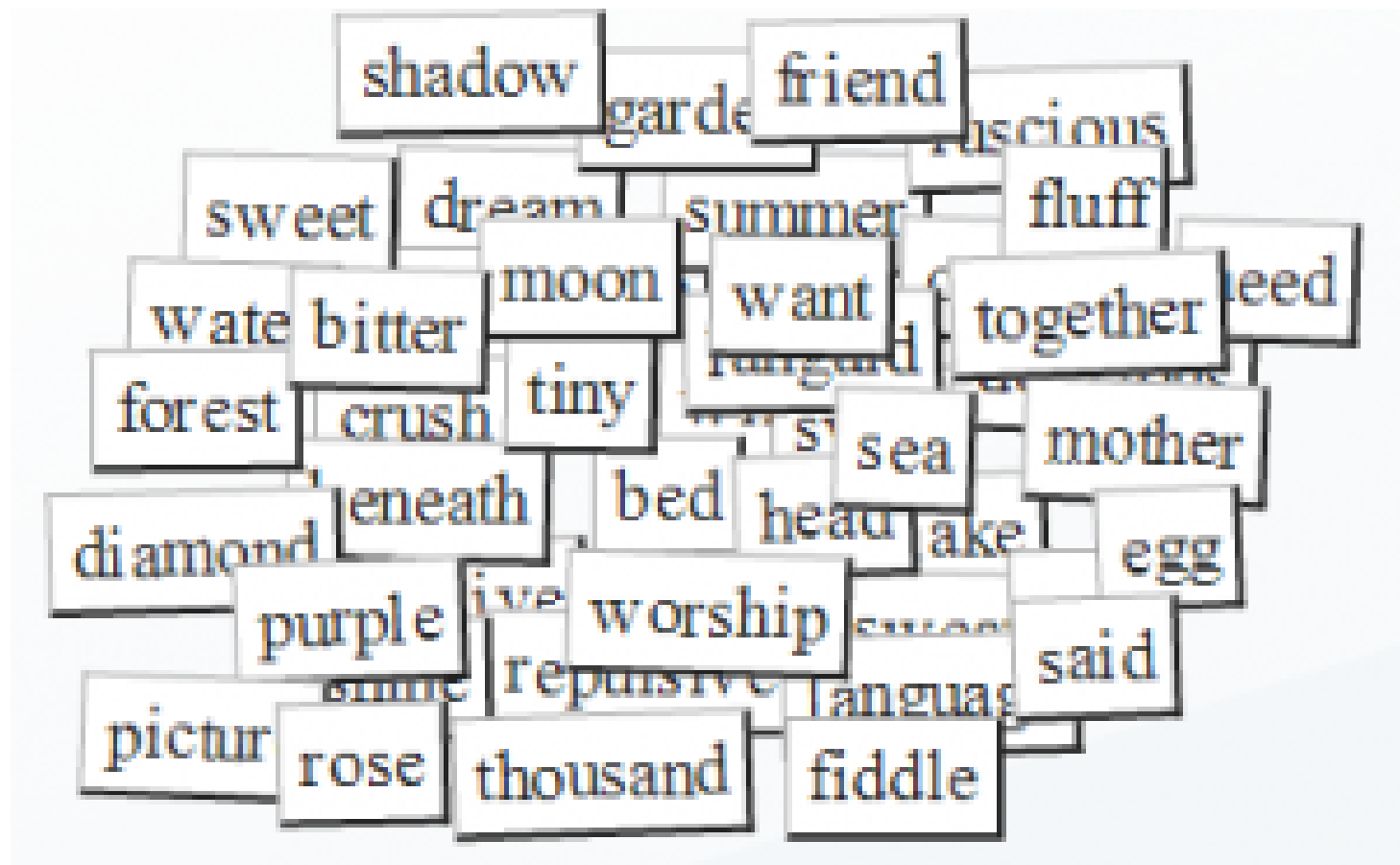
Learning in Context



Informal learning opportunities via extended networks

Task-Focused
Network-based

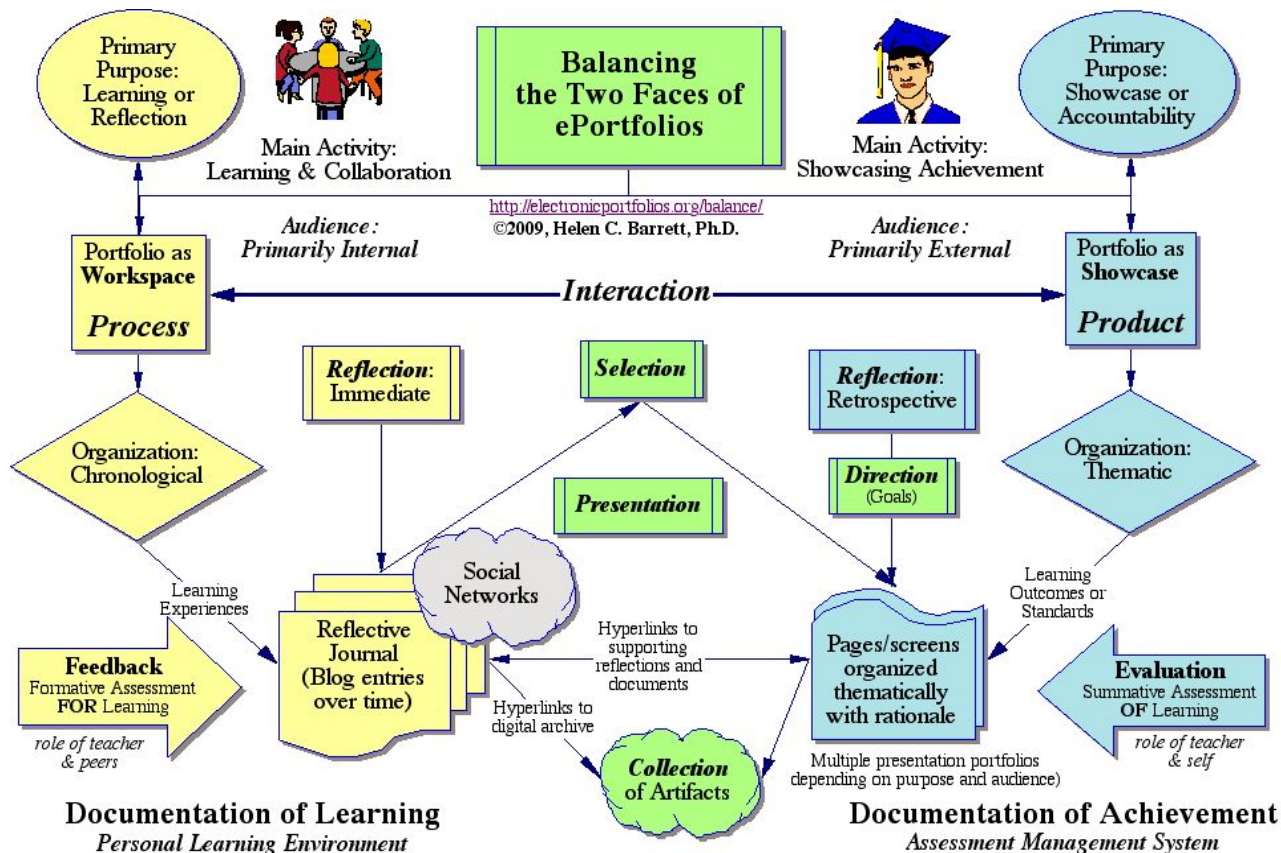
Think of OERs as words in a conversation



It forces us to think about how they can be used.



Consider how words are used in education.



Pask: Conversational Theory

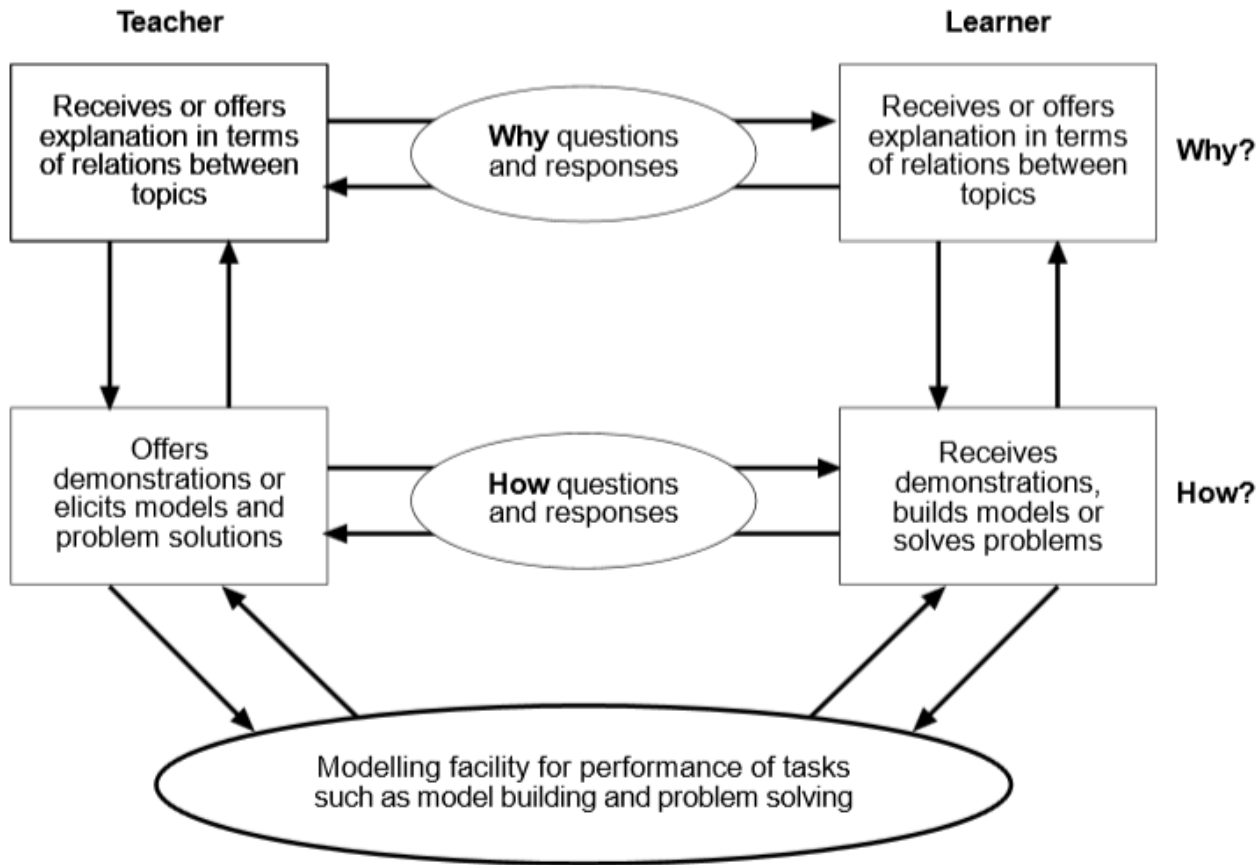
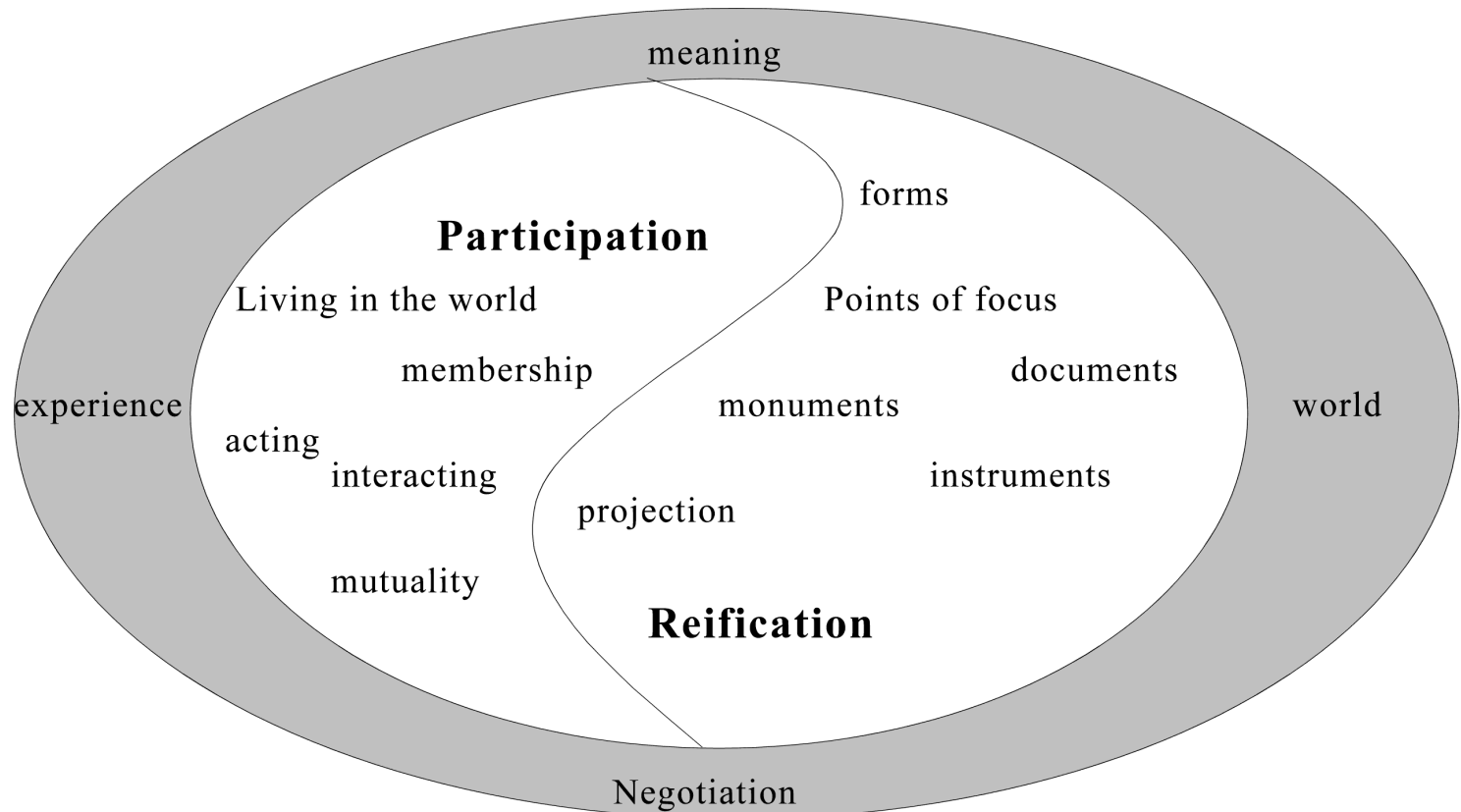
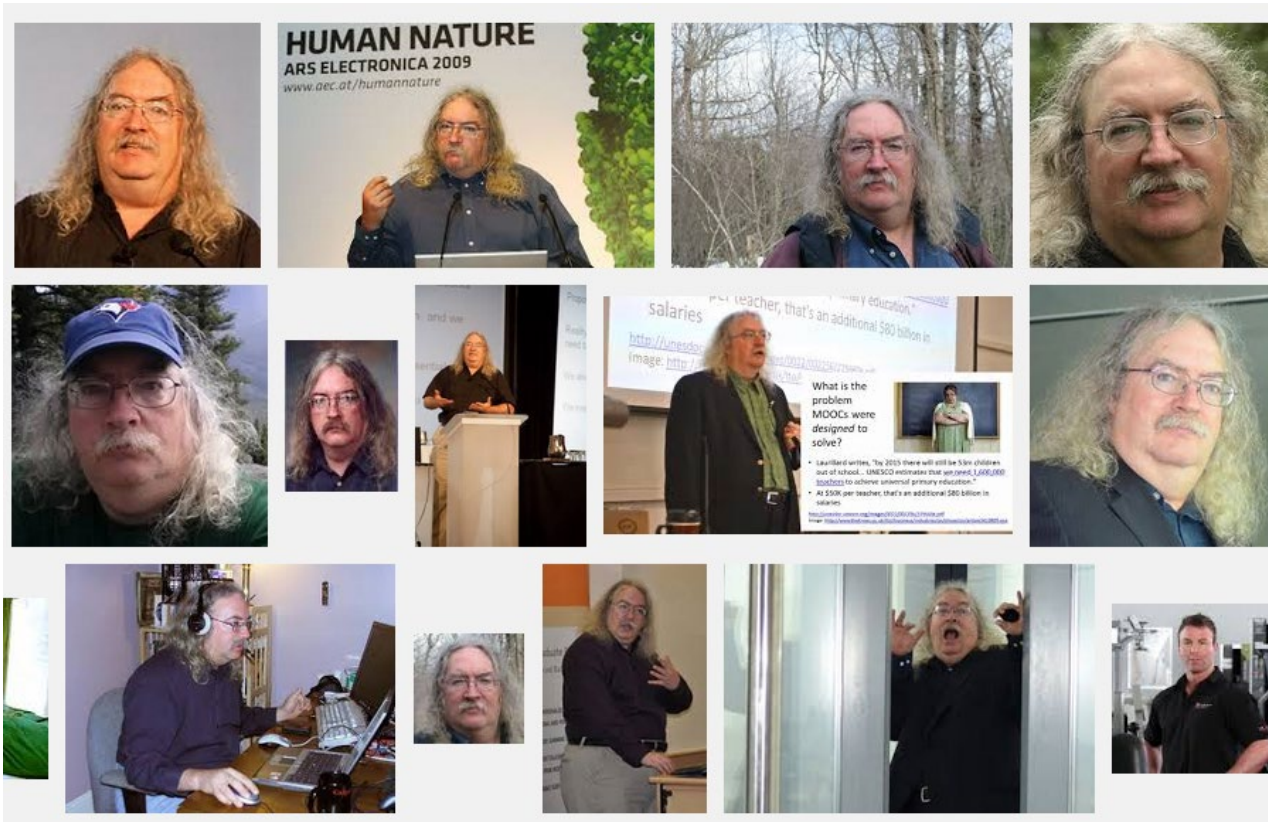


Figure 3 The “skeleton of a conversation” (after Pask).

Knowledge is reified by, and is the product of, not only an individual, but of the wider community.





Stephen Downes

<http://www.downes.ca>