



Collaboration and Cooperation

Workshop on “Mass Collaboration and Education”

Leibniz-Institut für Wissensmedien
Knowledge Media Research Centre
Tübingen, Germany

Stephen Downes
National Research Council Canada
May 22, 2014

Proposition...

- That mass collaboration, properly so-called, is not possible
 - (or, to the extent that it is possible, it is so undesirable we would prefer to avoid it)
- And that instead we should be exploring mass *cooperation* as an alternative objective



The Evolution of Cooperation

- Robert Axelrod asks, "Under what conditions will cooperation emerge in a world of egoists without central authority?"

<http://www-ee.stanford.edu/~hellman/Breakthrough/book/pdfs/axelrod.pdf>

- Pierre Dillenbourg: "In cooperation, partners split the work, solve sub-tasks individually and then assemble the partial results into the final output. In collaboration, partners do the work 'together'."

<http://halshs.archives-ouvertes.fr/docs/00/19/02/40/PDF/Dillenbourg-Pierre-1999.pdf>

- Stephanie D. Teasley and Jeremy Roschelle: "Collaboration is a coordinated, synchronous activity that is the result of a continued attempt to construct and maintain a shared conception of a problem... Cooperative work is accomplished by the division of labour among participants, as an activity where each person is responsible for a portion of the problem solving." What's important in collaboration is the creation of a shared model. "Our perspective has characterised collaboration as a process of constructing and maintaining a Joint Problem Space."

<http://umdperg.pbworks.com/f/RoschelleTeasley1995OCR.pdf>

Let's draw the distinction...

- When collaborating, people work together (co-labor) on a single shared goal.
- When cooperating, people perform together (co-operate) while working on selfish yet common goals.



Heavily borrowed from

<http://cloudhead.headmine.net/post/3279118157/cooperation-vs-collaboration>

Collaboration

The idea of shared goals, shared values...

- like an orchestra which follows a script everyone has agreed upon
- like a team playing a game against a common opponent


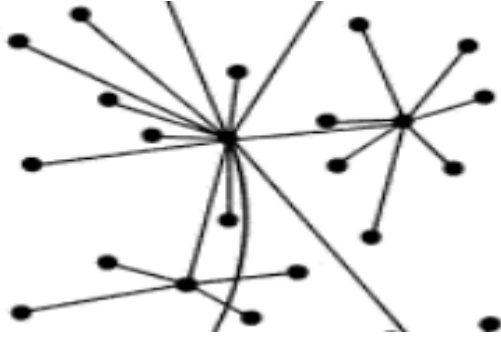



Cooperation

The idea of separate goals interacting for mutual gain

- like a marketplace with competing but cooperating vendors
- like the internet



<p>Individuals compete</p> 	<p>Collectives collaborate</p> 	<p>Connectives cooperate</p> 
<ul style="list-style-type: none"> • priority to the individual over the group • no shared sense of identity • pursuing own goals and competing against others 	<ul style="list-style-type: none"> • priority to the group over the individual • members adopt a joint identity • united them around their shared goal. 	<ul style="list-style-type: none"> • supports and encourages both simultaneously group and individual • no shared sense of identity • members busy pursuing their own goals

Collectives are breeding grounds for hierarchies and power struggles

“Even with the best intentions, collaboration often encourages pyramids of power and authority. The higher up the pyramid you are in a collective, the more freedom you have to carve out your own individual identity and direct the group’s efforts towards your own goals.”



Wikipedia...

- Is a collective
 - Everybody is working toward a common goal
 - There's *one* article on a topic which people create jointly
 - Wikipedia's 'rules' are essentially prerequisites for collaboration
 - "neutral" (ie., 'group') point of view
 - Referencing = rule for deciding on content
- Hence the power struggles and hierarchies that have developed

See, eg., 'The Decline of Wikipedia'

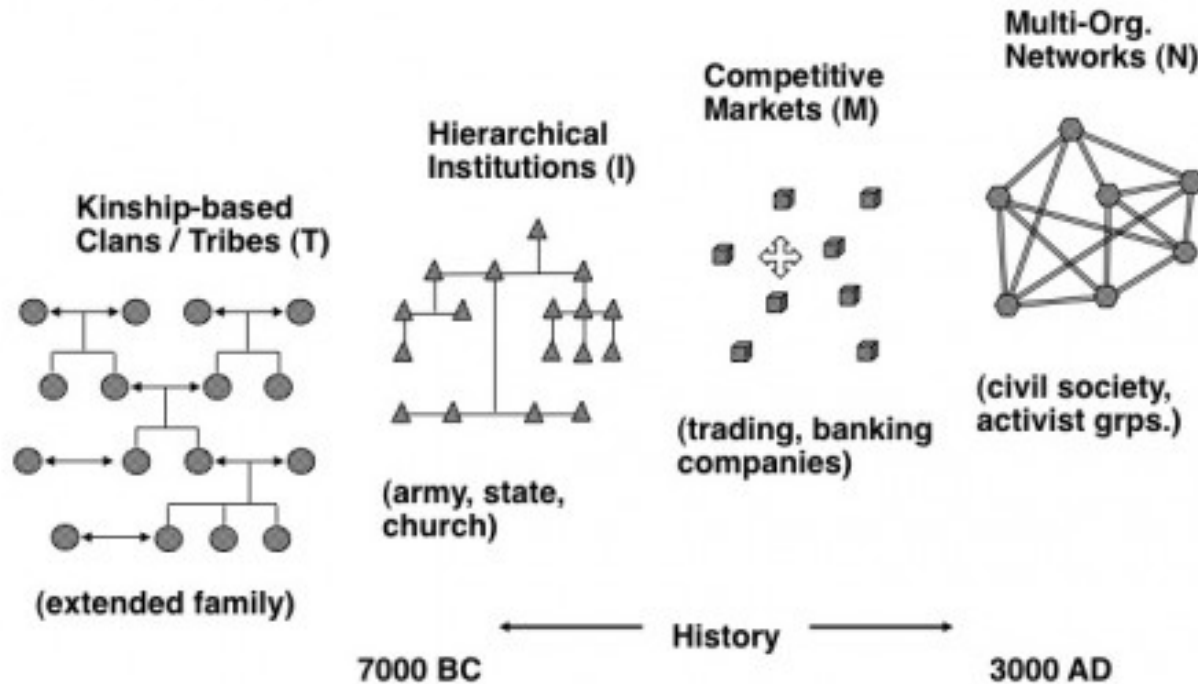
<http://www.technologyreview.com/featuredstory/520446/the-decline-of-wikipedia/>

Some (Post-Hoc) Antecedents

- Simmel's (1890) distinction between 'groups' (defined by some membership criterion) and 'webs of affiliation' (linked through specific types of connections) http://socio.ch/sim/index_sim.htm
- 'anticategorical imperative' (Emirbayer and Goodwin, 1994) which rejects explanations of 'social behavior as the result of individuals' common possession of attributes and norms rather than as the result of their involvement in structural social relations'. See <http://depts.washington.edu/methods/readings/emirbayer.pdf>

TIMN...

Four Forms Behind the Organization and Evolution of All Societies — TIMN



Groups vs Networks



= Collectives vs Connectives

Their Natures

- A *collective* is a collection of entities or members according to their nature; what defines a group is the quality members possess and number
- A *connective* is an association of entities or members via a set of connections; what defines a network is the extent and nature of this connectivity

Elements and Ecologies

- A collective is **elemental**, defined by mass and sameness – like an ingot of metal (Aside: traditional democracy is a collective phenomenon)
- A connective is diverse and changing, defined by interactions – like an **ecosystem**

Can we achieve order, responsibility, identity in an ecosystem? Do we need the iron hand?
(Aside: Solon, learning, justice)

Collective Unity

- A collective must be *cohesive, united*, “out of many, one”... “*the people, united, will never be defeated...*” The melting pot... the encouragement is to conform, to be like the others
- Collective technology appeals to the **mass**: television, radio, newspapers, books
- Internet technology includes: all-staff email, corporate website, portal

Connective Diversity

- A connective, by contrast, thrives on *diversity* ...
“*to each his own*” ... the salad bowl... the encouragement is to be distinct, to create
- Connective technology includes: talking, telephoning, writing letters, personal email
- Internet technology: personal home pages, blogs

Collective Coordination

- Collectives require *coordination*, a leader, someone who will show the way... and to be *managed*... a group will often be defined by its *values* (aka the leader's values?) and then a way to get members to follow, to share the *vision*, will define *standards* - members *belong* to a collective
- Associated technology includes the Learning Management System, Learning Design, LOM, etc

Connective Autonomy

- Connectives require *autonomy*, that is, that each individual operate *independently* according to his or her *own values and interests* – cooperation entails mutual exchange of value rather than follower and leader – members *interact* with a network
- Associated technology: e-portfolios, personal learning environments

Collective Borders or Boundaries

- Collectives are *closed* - they require a *boundary* that defines members and non-members – **walls** - membership, logins and passwords, jargon and controlled vocabulary, lock-in (staying on-message, speak as one)
- Technology: enterprise computing, federated search, user IDs and passwords, copyrights, patents, trademarks, assertions of *exclusivity*

Connective Openness

- Connectives require that all entities be able to send and receive messages both (a) *in their own way* and (b) *without being impeded*
- In their own way: open source software, platform independence, APIs, RSS, communities of practice
- Without being impeded: Creative Commons and GPL, distributed identity

Collective Centralization

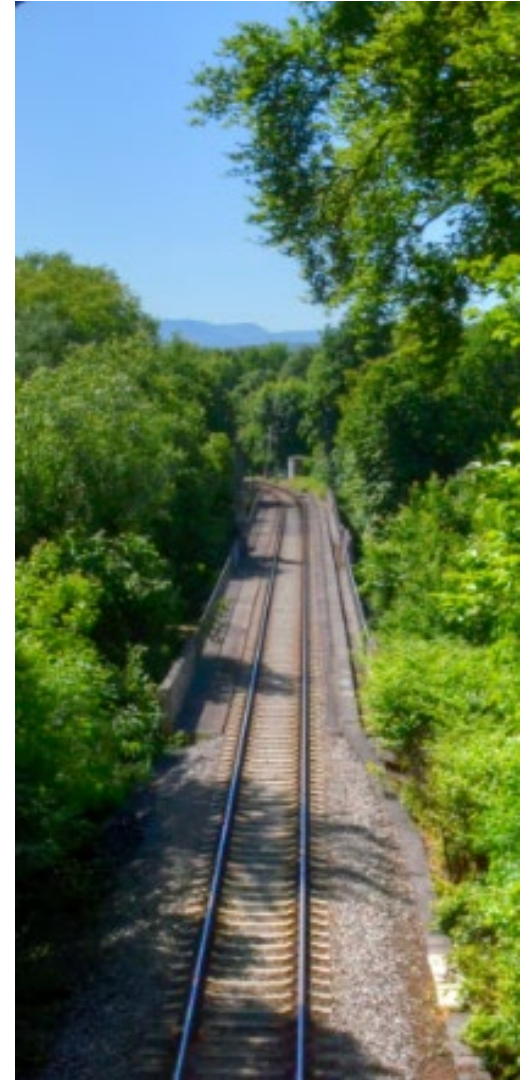
- Collectives are *distributive* – knowledge, information, money, etc., flows from the centre – an ‘authority’ and is distributed through to their members
- Collective knowledge is *representationally* based
 - I.e., it is based in a symbol system
 - And it required a (shared) semantics
- Associated technology: broadcast technologies, controlled vocabularies and ontologies

Connective Decentralization

- Connectivists are *emergentist* – knowledge is generated as a consequence of the interactions among members
- Connective knowledge is *non-representational*
 - The knowledge *is* the structure; there is no requirement that the structure ‘stand for’ anything
 - Interpretations of the structure are generated *externally* and are not inherent to the structure
- Relevant technology: tagging systems, ‘Page Rank’

Why Connectives?

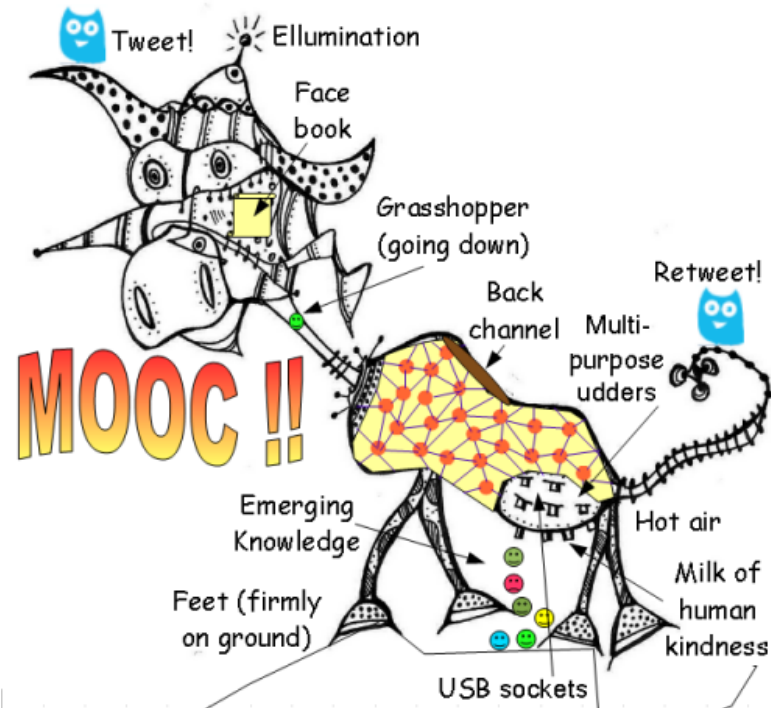
- Nature of the knower: humans are more like connectives than collectives
- Quality of the knowledge: collectives are limited by the capacity of the leader
- Nature of the knowledge: collective knowledge is *transmitted* and *simple* (cause-effect, yes-no, etc) while network knowledge is *emergent* and *complex*



- Harrison White. It's not an understatement to say that a lot of what I say here is anticipated years earlier in his work. "Social life is made up of endless chains and multiple overlapping nets, with no clear boundaries. It is long stings It is only a messy mesh or, rather, mush. Social reality is a terrain, a typology of networks and chains."

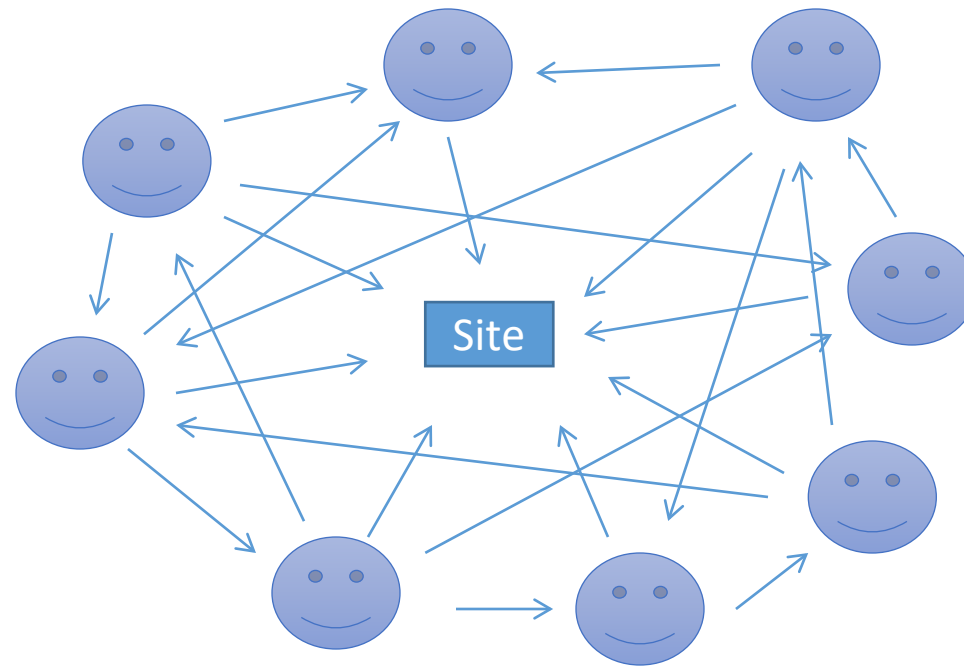


The MOOC



- **Massive** – by design
- **Open** – gratis and libre
- **Online** – not blended, not wrapped
- **Courses** – not communities, websites, video collections, etc

Massive Open Online Course



A MOOC is a Web, not a Website

Design Principles

Autonomy

- Choice of contents
- Personal learning
- No curriculum

Openness

- Open access
- Open content
- Open activities
- Open assessment

Diversity

- Multiple tools
- Individual perspective
- Varied content

Interactivity

- Encourage communication
- Cooperative learning
- Emergent knowledge

CCK08

The screenshot shows a Moodle course page titled "Connectivism and Connective Knowledge". The page is viewed in a Firefox browser window. The course is identified as "CCK08". On the left sidebar, there are links to "CCK08 Facebook Group", "Forums", and "Resources". The main content area is titled "Topic outline" and lists the course structure:

- Connectivism and Connective Knowledge is a twelve week course that will explore the concepts of connectivism and connective knowledge and explore their application as a framework for theories of teaching and learning. It will outline a connectivist understanding of educational systems of the future.
- Introductions
- Google Map of participants
- General Forum
- Connectivas Spanish pageflakes site
- Connectivism English Pageflakes site
- Week 1: What is connectivism
- Week 2: Rethinking Knowledge
- Week 3: Networks
- Week 4: History of Learning Networks
- Week 5: Groups and Networks
- Week 6: Complexity and Chaos
- Week 7: Instructional Design
- Week 8: Power, Authority, Control
- Week 9: Changing Roles
- Week 10: Openness
- Week 11: Systemic Change
- Week 12: Next Steps and Research

Below the topic outline, a numbered list of 10 topics is provided:

- 1 What is Connectivism?
- 2 Rethinking epistemology: Connective knowledge
- 3 Properties of Networks
- 4 History of networked learning
- 5 Connectives and Collectives: Distinctions between networks and groups
- 6 Complexity, Chaos and Research
- 7 Instructional design and connectivism
- 8 Power, control, validity, and authority in distributed environments
- 9 What becomes of the teacher? New roles for educators
- 10 Openness: social change and future directions

On the right side of the page, there is a calendar for February 2013 and an "Events Key" section.

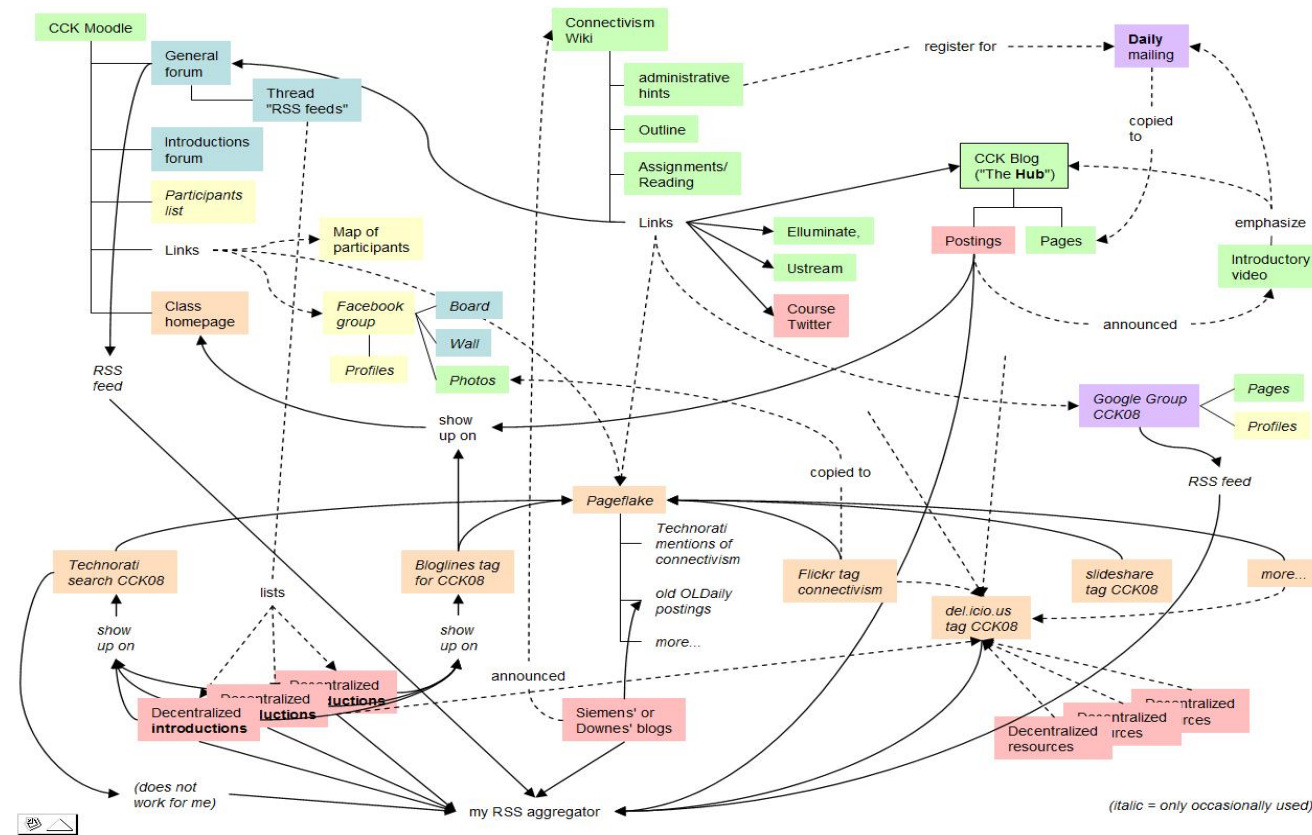
<http://wwwapps.cc.umanitoba.ca/moodle/course/view.php?id=20>

2300 students

The screenshot shows a page titled "Connectivism & Connective Knowledge" with a green header. Below the title, there are navigation links: [Home] [The Daily] [Wiki] [About] [Aggregations] [Readings]. Further down, there are more links: [Options] [The Daily Archives] [The Daily RSS Feed] [Feeds] [Posts] [Places]. The main heading is "The Daily" in a large, green, serif font. Below this, the date "October 15, 2008" is displayed. The section is titled "Elluminate Discussions Today". The text reads: "Today we welcome Alec Couros into our course and our week 6 discussion of chaos and complexity. Two Elluminate discussions (both sessions can be accessed via this link): 11 am CST: See time zone conversions 7 pm CST: See time zone conversions. Alec Couros will be presenting during both times, followed by informal conversation." Below this, there is a section titled "Highlighted Resources" with the heading "Connected Without Modem?". The text continues: "Is feedback a form of coercion? Muru writes, 'I have seen some behaviourism taking place in the feedback or lack of feedback given, I perceive some kind of light coercion going on, not in a direct way. It is in a vicarious way, I ignore your behavior and acknowledge the behaviour that I consider right for'".

<http://connect.downes.ca/cgi-bin/archive.cgi?page=thedaily.htm>

Connectivist MOOCs



Course Components

- The Daily

Connectivism & Connective Knowledge

[\[Home\]](#) [\[The Daily\]](#) [\[Wiki\]](#) [\[About\]](#) [\[Aggregations\]](#) [\[Readings\]](#)

The Daily

September 9, 2008

Highlighted Resources

[Time Change for Wednesday Session](#)

Important: We've made a change to our Wednesday (in our part of the world) schedule. The illuminate session will be held at 11:00 am CST (see [conversion here](#)). The event will be held in illuminate ([link here](#)). Sorry about this last minute change. If the time doesn't work for those in Australia and Asia, please let me know ([gsiemens@elearnspace.org](mailto:g Siemens@elearnspace.org)) and we can try and arrange a smaller discussion group at a different time). CCK08, , September 9, 2008 [[Link](#)] [Tags: none] [[Comment](#)]

[Connections, Learning, and Ptolomeus \(CCK08-W1\)](#)

Nice post on the question of whether we 'grow' or 'build' new learning. Diego Leal cites John Medina's book *Brain Rules* (I'll have to get that one) on learning: "No defined structure, no progressive storage. Just the creation and recreation of connections between neurons. So, the process seems to be closer to something growing out (or expanding?) than to something being built." Here's the [Brain Rules](#) website, if you want to have a look. [Diego Leal](#), [.Edu.Co.Blog](#), September 9, 2008 [[Link](#)] [Tags: none] [[Comment](#)]

<http://connect.downes.ca/>

Course Components

- Managing Content

The screenshot shows the homepage of a website titled "CONNECTIVISM & CONNECTIVE KNOWLEDGE" with the subtitle "a rather large open online course...". The navigation bar includes links for HOME, THE DAILY (which is highlighted), WIKI, ABOUT, AGGREGATIONS, READINGS, and SIGNING UP. The main content area is divided into two columns. The left column, under the heading "[ADMIN]", contains a list of content types, each with "[New]" and "[List]" links: Author, Box, Cite, Event, Feed, File, Journal, Link, Optlist, Mapping, Page, Person, Post, Presentation, Publication, Project, Task, Template, Theme, Topic, and View. The right column contains several sections: "Site Administration", "Reader" with a "Viewer" link, "Mailing List" with a "Test Newsletter (Sends to Admin Only)..." link and a "Send Newsletter" link, "Harvester" with links for "Harvest Next In Queue", "Harvest All Feeds", and "Calculate Most Cited", "Harvest Results" with links for "Most Recent in EduRSS (RSS Version)" and "Look at the files: HTML, XML, RSS", and "Feeds" with links for "Export OPML File" and "Import Feed List From OPML".

CONNECTIVISM & CONNECTIVE KNOWLEDGE
a rather large open online course...

HOME THE DAILY WIKI ABOUT AGGREGATIONS READINGS SIGNING UP

Site Administration

[ADMIN]

[New] [List] Author
[New] [List] Box
[New] [List] Cite
[New] [List] Event
[New] [List] Feed
[New] [List] File
[New] [List] Journal
[New] [List] Link
[New] [List] Optlist
[New] [List] Mapping
[New] [List] Page
[New] [List] Person
[New] [List] Post
[New] [List] Presentation
[New] [List] Publication
[New] [List] Project
[New] [List] Task
[New] [List] Template
[New] [List] Theme
[New] [List] Topic
[New] [List] View

Reader

- [Viewer](#)

Mailing List

- [Test Newsletter \(Sends to Admin Only\)...](#) [Send Newsletter](#)

Harvester

- [Harvest Next In Queue](#)
- [Harvest All Feeds](#)
- [Calculate Most Cited](#)

Harvest Results

- [Most Recent in EduRSS \(RSS Version\)](#)
- Look at the files: [HTML](#), [XML](#), [RSS](#)

Feeds

- [Export OPML File](#)
- [Import Feed List From OPML](#)

Course Components

- Feed Harvesting

CONNECTIVISM & CONNECTIVE KNOWLEDGE

a rather large open online course...

[HOME](#)[THE DAILY](#)[WIKI](#)[ABOUT](#)[AGGREGATIONS](#)[READINGS](#)[SIGNING UP](#)

List feeds

[\[ADMIN\]](#)

[New] [List] Author	[Harvest] [Retire] Links: ActionsFLE en formation (category)
[New] [List] Box	[Approve] Links: Aggregator Blog (category)
[New] [List] Cite	[Approve] Links: Al dAa (category)
[New] [List] Event	[Approve] Links: Alvin's Educational Technology Blog (category)
[New] [List] Feed	[Approve] Links: An Education and Technology Blog (category)
[New] [List] File	[Approve] Links: An Oxonian's Learning Journey (category)
[New] [List] Journal	[Approve] Links: Beespace (category)
[New] [List] Link	[Approve] Links: blog.puntopanto.it, bloggers she wrote (category)
[New] [List] Optlist	[Approve] Links: Bradley Shoebottom Blog (category)
[New] [List] Mapping	[Approve] Links: Brett Powell CCK (category)
[New] [List] Page	[Approve] Links: Buthaina-Connect08 (category)
[New] [List] Person	[Approve] Links: CCK-No8 (category)
[New] [List] Post	[Approve] Links: cck08 - learning (category)
[New] [List] Presentation	[Approve] Links: CCK08-Viplay Baxi (category)
[New] [List] Publication	[Approve] Links: Classroomblogging.com (category)
[New] [List] Project	[Approve] Links: Coalesce (category)
[New] [List] Task	[Approve] Links: Concetta Gotlieb's Blog (category)
[New] [List] Template	[Approve] Links: Connecting Online (category)
[New] [List] Theme	[Approve] Links: Connective Knowledge Weblog (category)
[New] [List] Topic	[Approve] Links: Connectivism & Connective Knowledge (edubloggers)
[New] [List] View	[Approve] Links: Connectivism and Connective Knowledge (category)
	[Approve] Links: Connectivism by the Nile (category)

Course Components


- OPML...

[illegible]

Course Components

- Intro...

GettingStarted (00:05 / 03:45) ATTACHMENTS



George Siemens
Associate Director, R & D,
LTC, U of Manitoba


Email

Outline Thumbnails Notes Search


- 1. Connectivism and Connective Knowledge: G
- 2. Slide 2
- 3. The Hub
- 4. The Daily
- 5. Slide 5
- 6. Each Week
- 7. Weekly Schedule
- 8. How to participate
- 9. Tasks

Connectivism and Connective Knowledge: Getting Started

Massive Open Online Course



George Siemens
Stephen Downes



articulate POWERED PRESENTATION

SLIDE 1 OF 9 PAUSED 00:05 / 03:10

The Students

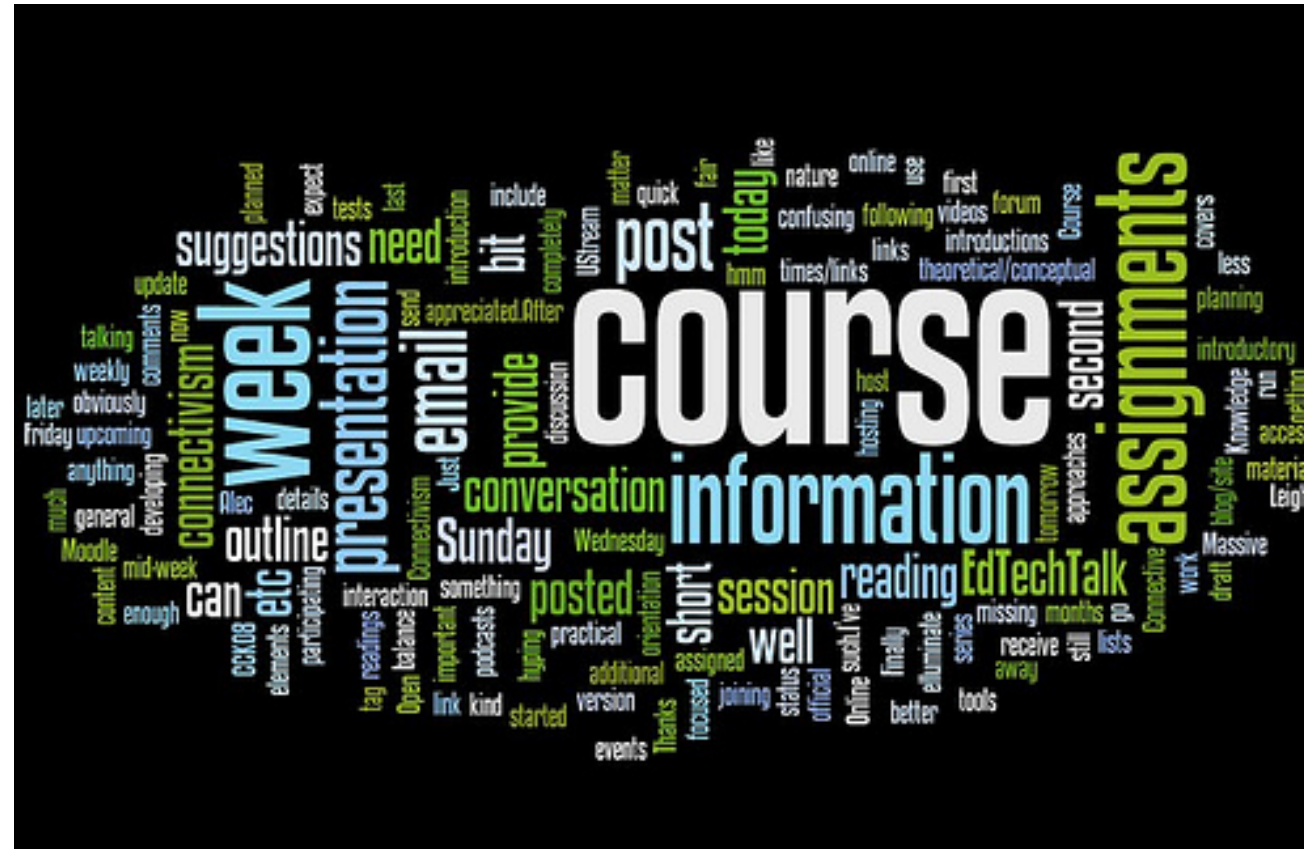
- The *Other* Course Map...



<http://tinyurl.com/cck08map>

The Students

- Wordle...



<http://www.flickr.com/photos/25838481@N04/>

The Students

- Google Groups

The screenshot shows a Google Groups interface for the group 'Connectivism and Connective Knowledge'. The user 'stephen.downes.ca@gmail.com' is logged in. The discussion thread is titled 'extending access of CCK08' and has 7 messages. The first message is from HelenaR, asking if there is a need for regional help desks in Portuguese and offering to help with translation. The second message is from MariaTeresa, replying that translation is important and that having content in multiple languages would help engage readers. The interface includes options to view profiles, reply, forward, and rate posts.

Google Groups stephen.downes.ca@gmail.com | [My Groups](#) | [Favo](#)

Connectivism and Connective Knowledge

extending access of CCK08 [Options](#)

★ 7 messages - [Collapse all](#)

HelenaR [View profile](#) [More options](#) Jun 22, 1:58 am

Is there a need to create a kind of regional help desks, in Portuguese for instance, to easy access to this course ? Can i help translating or co-translating the contends ?
Helena

[Reply to author](#) [Forward](#) Rate this post: ★★★★★

MariaTeresa [View profile](#) [More options](#) Jun 24, 4:35 pm

Very good idea Helena. Translation is important; even though the language of the course is english, to count with information on how to participante in several languages will help to engage readers in those languages, Maria Teresa

On 22 jun, 07:58, HelenaR <ramoshelenama...@gmail.com> wrote:

- Show quoted text -

[Reply to author](#) [Forward](#) Rate this post: ★★★★★

<http://groups.google.com/group/connectivism>

The Students

- Translations...



The screenshot shows a web browser displaying a wiki page from the Learning Technologies Centre (LTC). The page title is "Conectivismo - Curso online". The header includes the LTC logo and a navigation bar with tabs for "page", "discussion", "view source", and "history". The main content area welcomes visitors to the wiki and provides information about the course, including a tag "CCK08" and links to translations in English, Spanish, Chinese, and Italian. A sidebar on the left contains navigation links and "ltc links".

LTC
Learning Technologies Centre

Log in / create account

[page](#) [discussion](#) [view source](#) [history](#)

Conectivismo - Curso online

Bem-vindo ao wiki de apoio ao **curso online sobre Conectivismo e Conhecimento Conectado**.

Tag do curso: CCK08

Esta página também está disponível em [Inglês](#), em [Espanhol](#) em [Chinês](#) (Versão simplificada de caracteres) e em [Italiano](#).

Esta página também tem um grupo no FaceBook em [CCK08](#)

Contents [hide]

- 1 Por favor, se quiser participar, (seja de forma livre ou de uma forma formal para acreditação) insira o seu e-mail aqui
- 2 Blogue do curso
- 3 Detalhes do curso

um projects

http://ltc.umanitoba.ca/wiki/Conectivismo_-_Curso_online

The Students

- Second Life...
- Diigo...
- de.l.icio.us
- WordPress...



WORDPRESS.COM

Blogs about: Cck08

OTHER COURSES



PLENK2010
Personal Learning Environments
Networks and Knowledge 2010

home discussion wiki the daily blog live sessions recordings about

Schedule

WEEK OF...
12TH SEPTEMBER 2010
[A TOUR OF PLES AND PLNS](#)

19TH SEPTEMBER 2010
[CONTRASTING PLES WITH LMSs](#)

26TH SEPTEMBER 2010
[THE NEXT/EXTENDED WEB](#)

3RD OCTOBER 2010
[PLE/PLN AND LEARNING THEORIES](#)

10TH OCTOBER 2010
[EVALUATING LEARNING IN PLE/NS](#)

17TH OCTOBER 2010
[USING PLES SUCCESSFULLY](#)

24TH OCTOBER 2010
[PLE/N TOOLS](#)

31ST OCTOBER 2010
[PERSONAL KNOWLEDGE](#)

Welcome to the Course

YOU ARE LOGGED IN AS [NAME] [LOGOUT]

SEE I CAN PLEAVE, TOO!

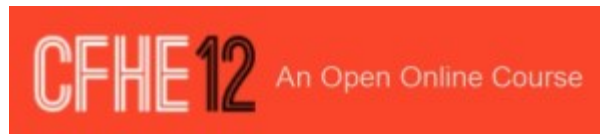
PLENK 2010

If you would like to register for PLENK2010 there's still [Click here to Register](#)

If you have subscribed to The Daily, then you will receive

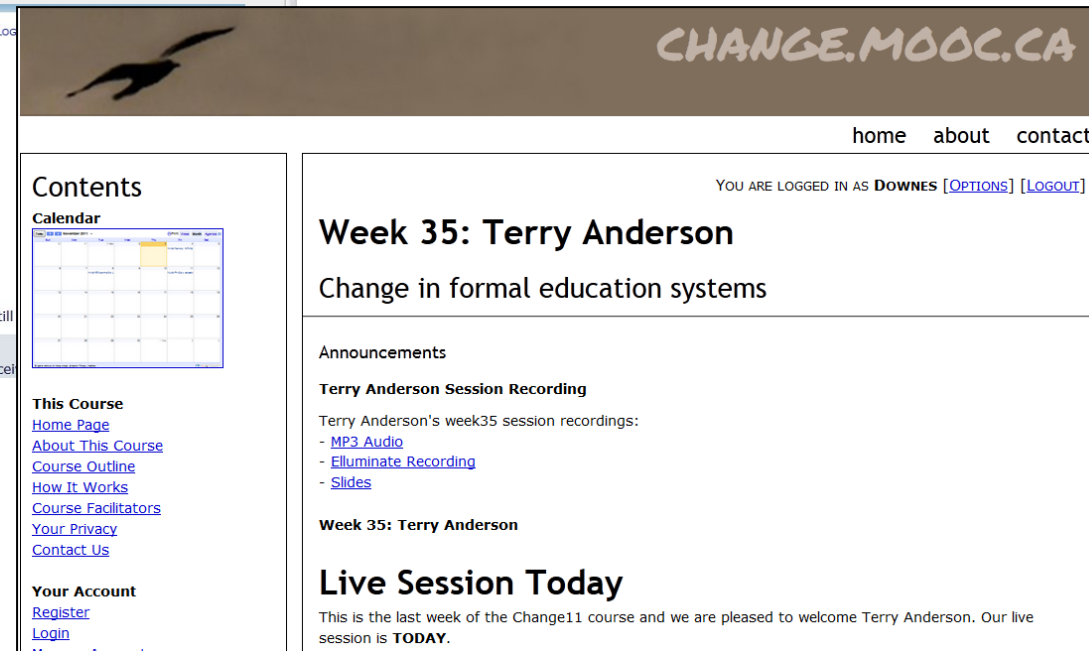
1800 students

<http://connect.downes.ca/>



3000 students

<http://edfuture.net/>



CHANGE.MOOC.CA

home about contact

YOU ARE LOGGED IN AS DOWNES [OPTIONS] [LOGOUT]

Week 35: Terry Anderson
Change in formal education systems

Announcements

Terry Anderson Session Recording

Terry Anderson's week35 session recordings:

- [MP3 Audio](#)
- [Elluminate Recording](#)
- [Slides](#)

Week 35: Terry Anderson

Live Session Today

This is the last week of the Change11 course and we are pleased to welcome Terry Anderson. Our live session is **TODAY**.

Contents

Calendar

This Course

- [Home Page](#)
- [About This Course](#)
- [Course Outline](#)
- [How It Works](#)
- [Course Facilitators](#)
- [Your Privacy](#)
- [Contact Us](#)

Your Account

- [Register](#)
- [Login](#)
- [Manage Account](#)

2800 students

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

Most Recently



The screenshot shows the homepage of the REL 2014 MOOC. The header is dark blue with the title 'REL 2014 - Pour une éducation libre' in white. Below the title is a navigation bar with links: ACCUEIL, VOTRE COMPTE, COMPTES RENDUS, PARTICIPER, SYNDICATION RSS, and ARCHIVES. A status bar indicates the user is logged in as 'admin' with links for 'Déconnexion' and 'Profil'. The main content area is divided into a left sidebar and a main section. The sidebar has a red header 'Bienvenue admin' with a user profile picture, followed by a menu with 'INTRODUCTION' and '1. DU CLOM CONNECTIVISTE ET FONCTIONNEMENT DE CE COURS'. The main section has a green title 'Réutiliser, Retravailler, Recombiner, Redistribuer – 4R des REL pour une Éducation libre', a welcome message, course details, and a section titled 'Introduction au CLOM REL 2014'.

REL 2014 - Pour une éducation libre

ACCUEIL VOTRE COMPTE ▼ COMPTES RENDUS ▼ PARTICIPER ▼ SYNDICATION RSS ▼ ARCHIVES ▼

Vous êtes connecté(e) en tant que **admin** [Déconnexion] - [Profil]

Bienvenue admin



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).

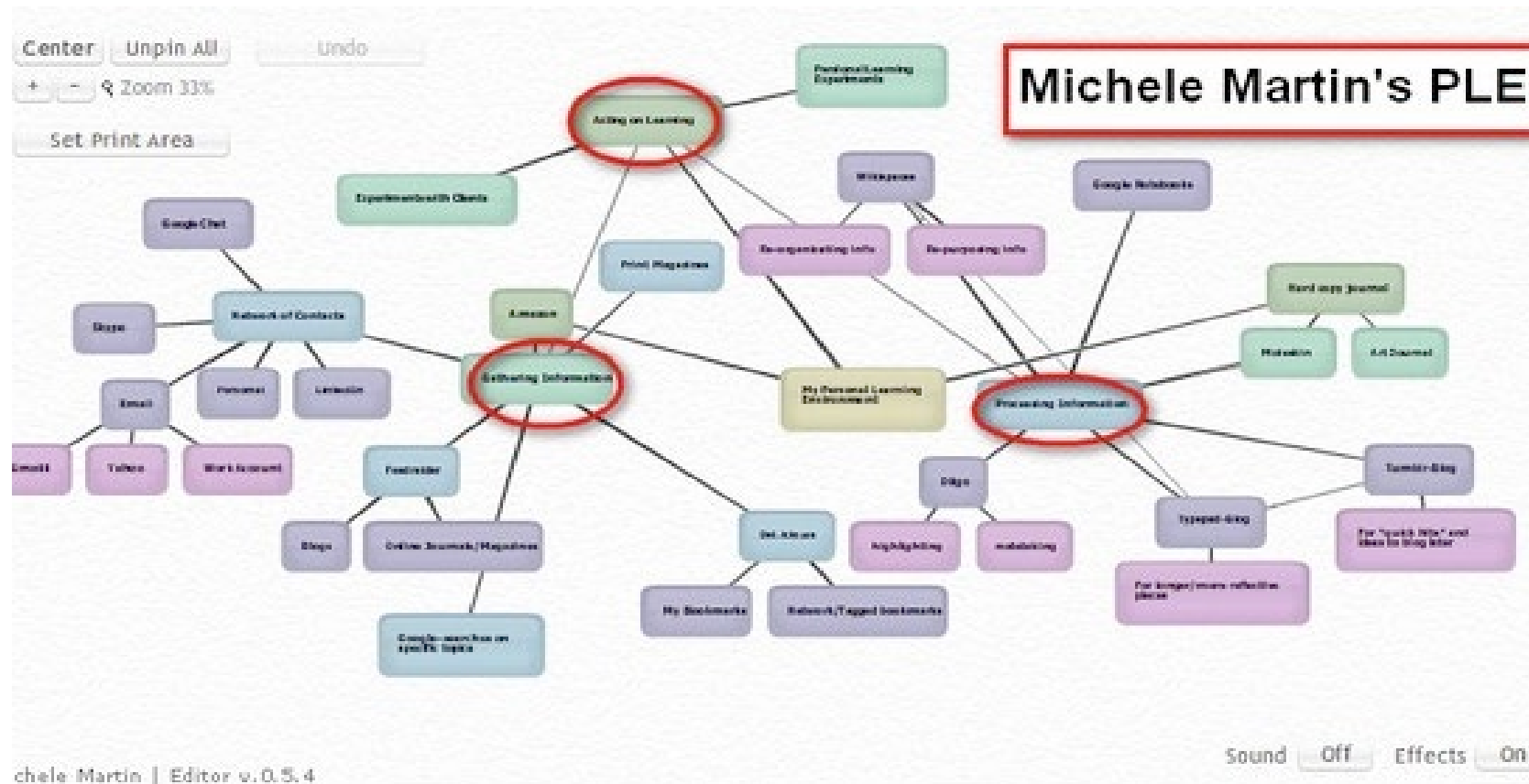
Le cours débute le 3 mars 2014 et dure neuf semaines consécutives. Si vous n'êtes pas déjà inscrit(e), faites-le tout de suite pour recevoir le Bulletin de nouvelles quotidiennes et bénéficier du droit de commentaires/discussion dans le site.

Introduction au CLOM REL 2014

MOOC REL 2014

<http://rel2014.mooc.ca>

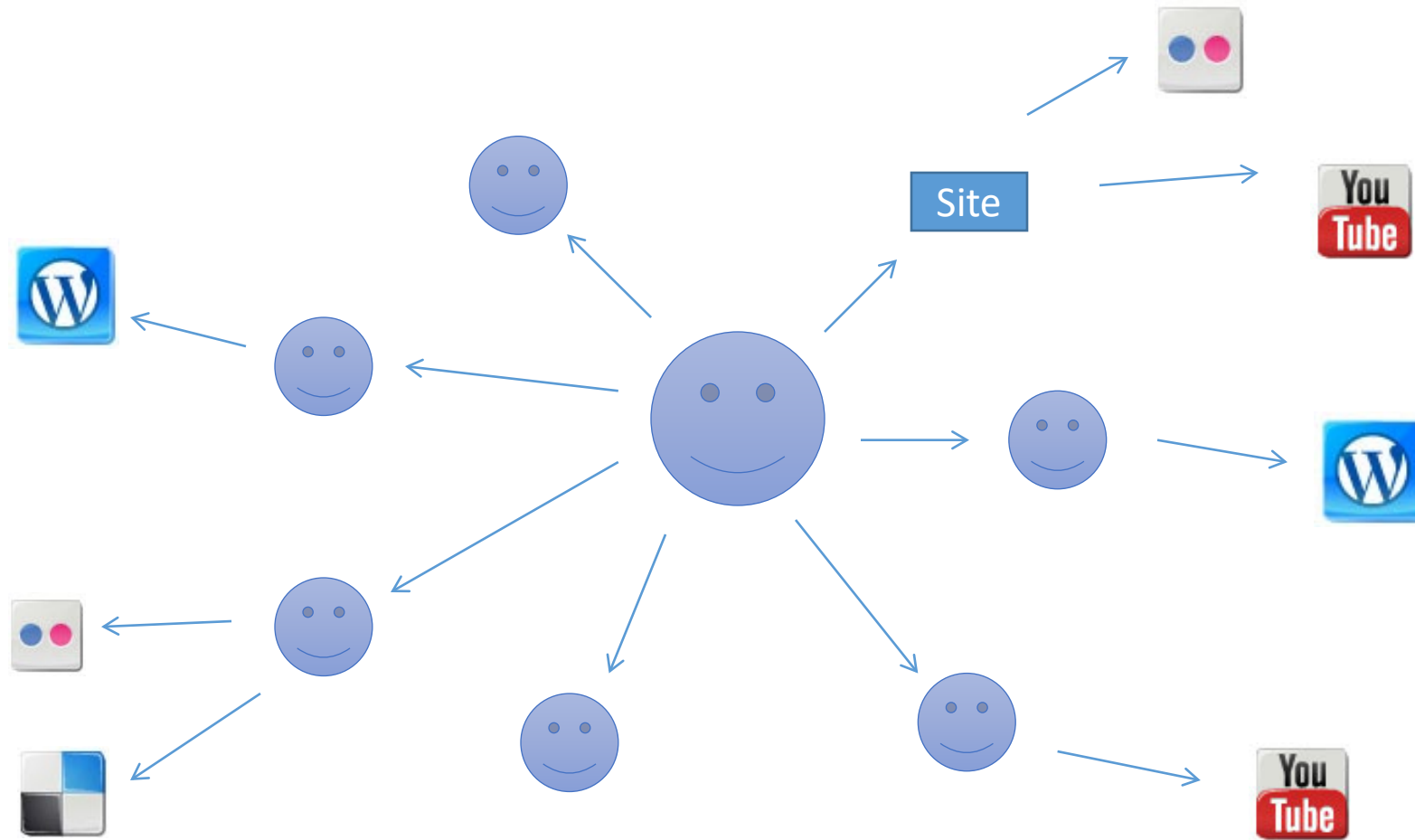
Personal Learning



<http://dmlcentral.net/blog/howard-rheingold/diy-u-interview-anya-kamenetz>

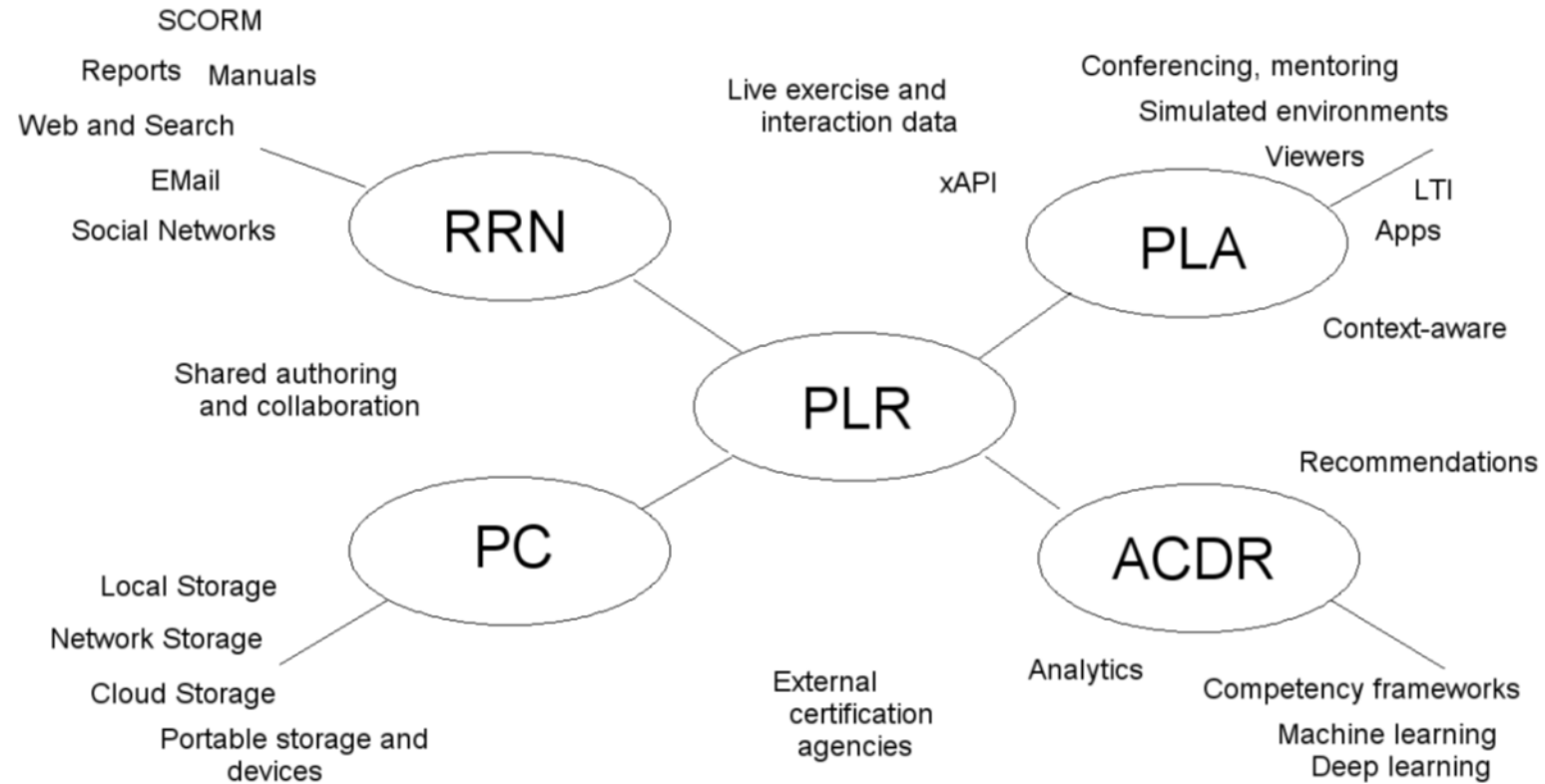
<http://www.downes.ca/post/58150>

The Student's Perspective

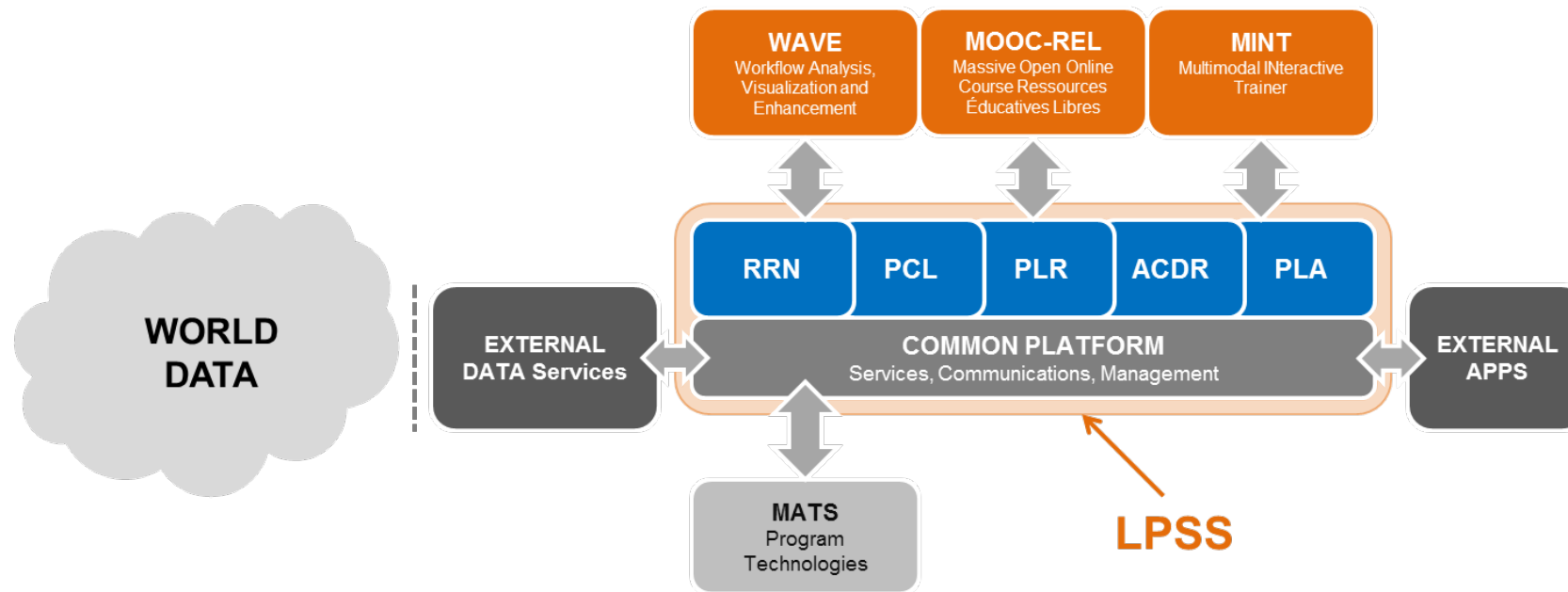


A range of different resources and services

LPSS core technologies



Learning and Performance Support



<http://halfanhour.blogspot.com.es/2013/12/learning-and-performance-support-systems.html>

<http://www.nrc-cnrc.gc.ca/eng/solutions/collaborative/lpss.html>

Core Lessons Here...

- That, as I said, mass collaboration is either impossible or undesirable
 - Which should lead you to question whether studies of eg. Wikipedia will take you to the places you want to go
- And I've identified cooperation as an alternative model
 - Especially as a model of organization
 - But additionally as a model of learning
 - Which has been tried and resulted in MOOCs

- Stephen Downes
- <http://www.downes.ca>

