Collaboration and Cooperation

Workshop on “Mass Collaboration and Education”

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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 Roschellel: "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…

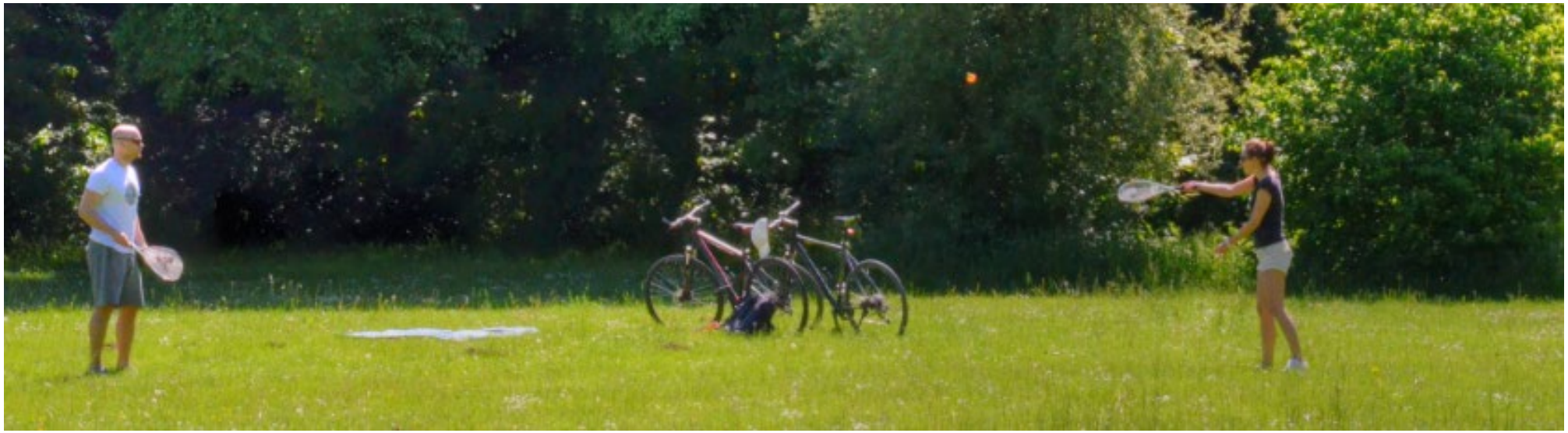
- When collaborating, people work together (co-labor) on a single shared goal.
- When cooperating, people perform together (co-operate) while working on selfish yet common goals.

Heavily borrowed from
http://cloudhead.headmine.net/post/3279118157/cooperation-vs-collaboration

Collaboration

The idea of shared goals, shared values…

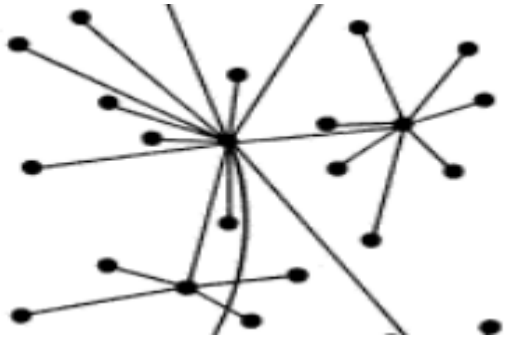
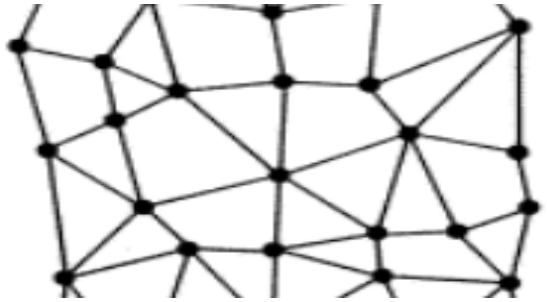
- like an orchestra which follows a script everyone has agreed upon
- like a team playing a game against a common opponent



Cooperation

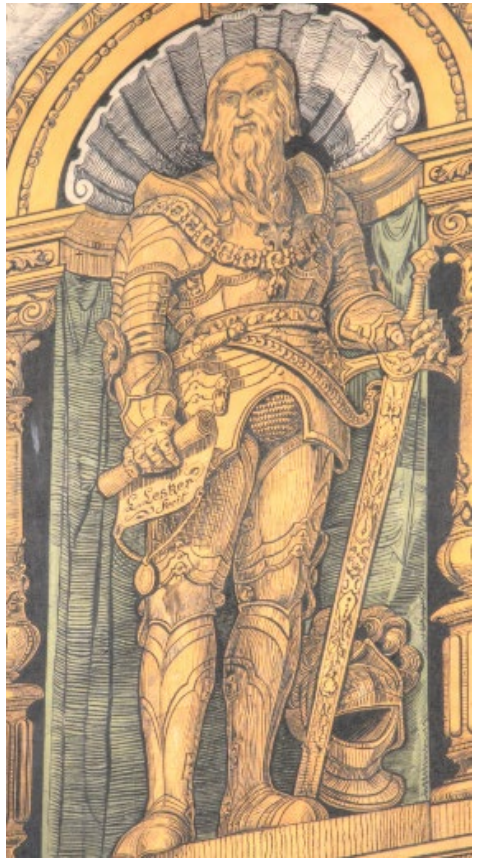
The idea of separate goals interacting for mutual gain

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

Individuals compete	Collectives collaborate	Connectives cooperate
		
• priority to the individual over the group • no shared sense of identity • pursuing own goals and competing against others	• priority to the group over the individual • members adopt a joint identity • united them around their shared goal.	• 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."



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

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 dedising on content
- Hence the power struggles and hierarchies that have developed

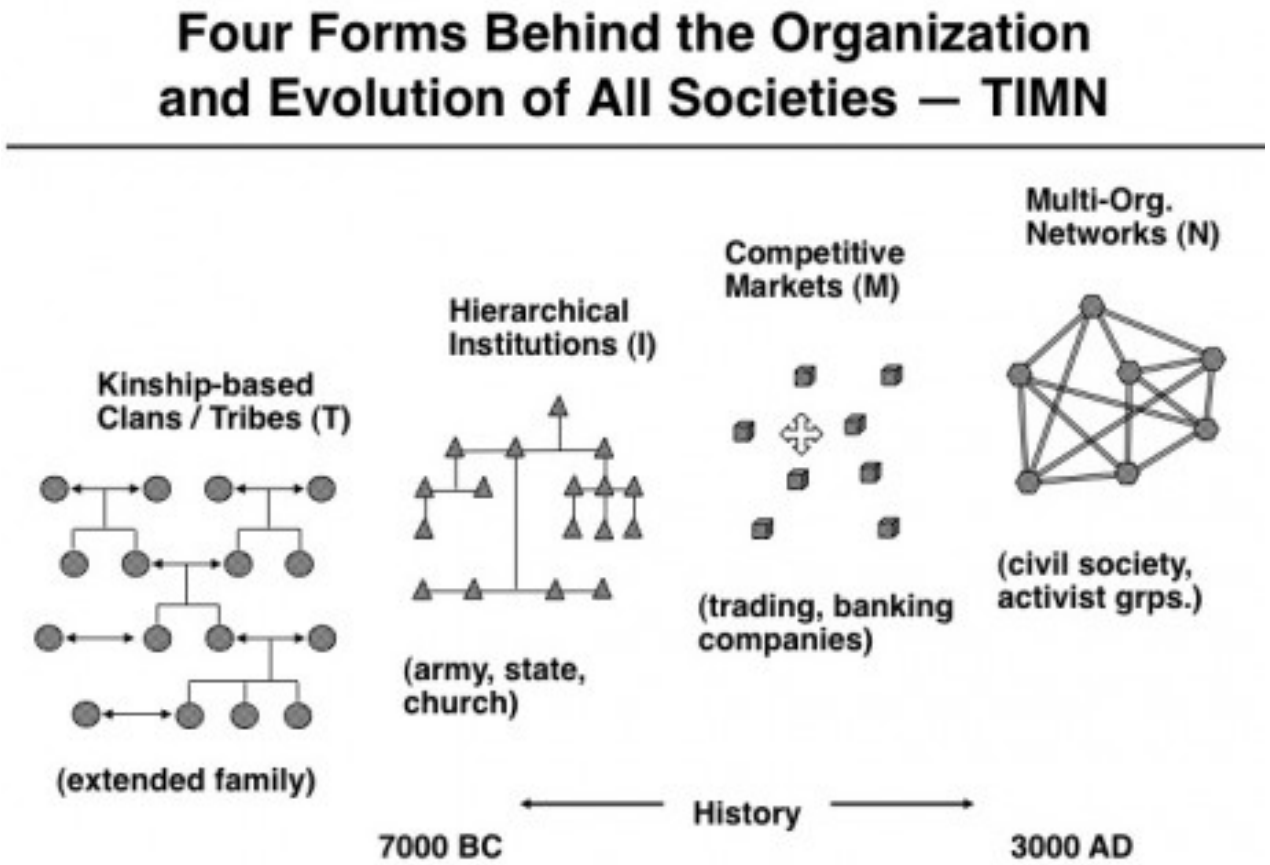
See, eg., 'The Decline of Wikipedia'
http://www.technologyreview.com/featuredstory/520446/the-decline-of-wikipedia/

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

http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.130.1129&rep=rep1&type=pdf

TIMN…



http://www.rand.org/content/dam/rand/pubs/papers/2005/P7967.pdf

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

From http://www.downes.ca/presentation/53

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

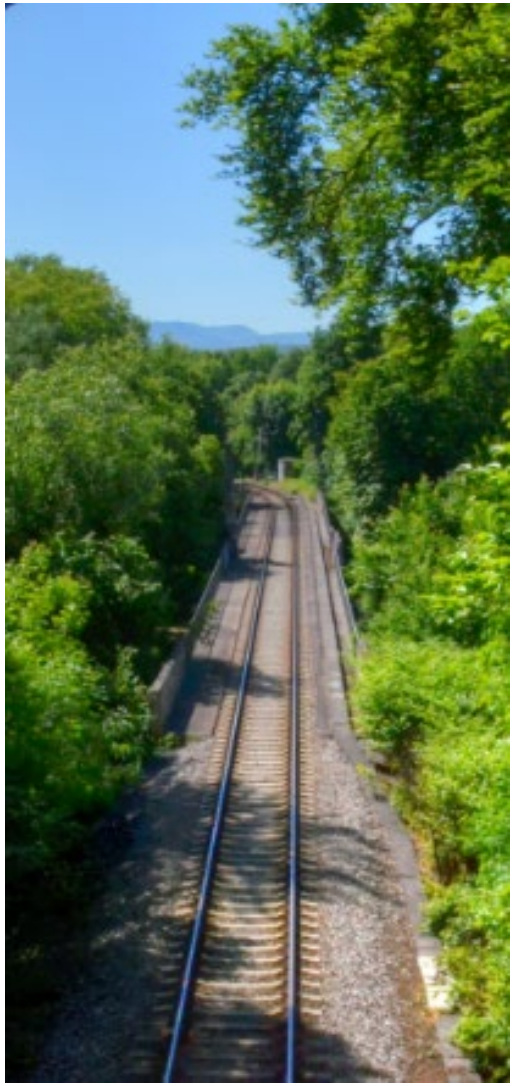
- Collectives are *distributive* – knowledge, information, money, etc., flows from the centre – an ‘authority’ and is distributed through to their members
- Collective knowledge is *representationally* based
  - Ie., it is based in a symbol system
  - And it required a (shared) semantics
- Associated 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'

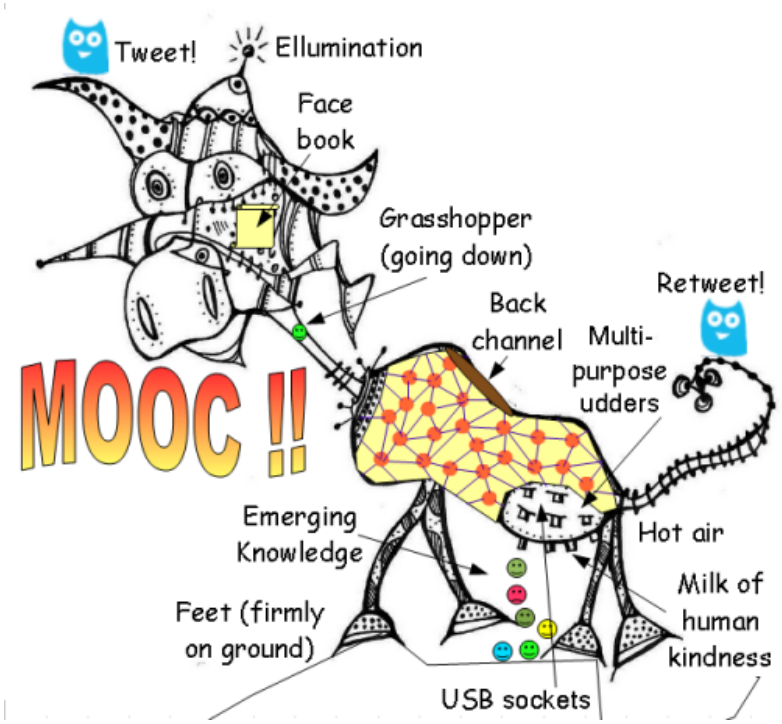
Why Connectives?

- 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*



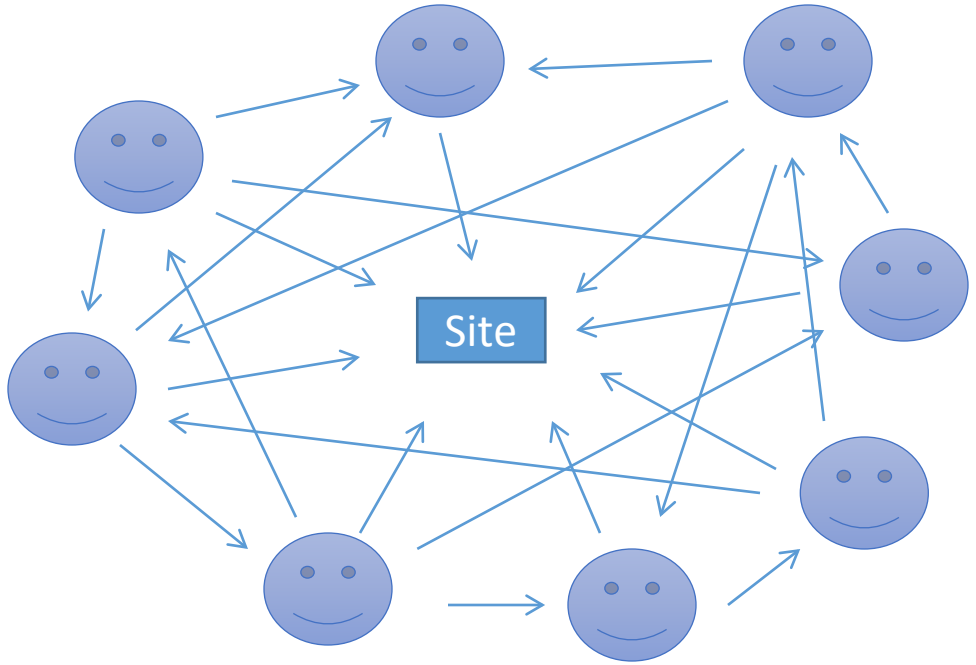
- Harrison White. It's not an understatement to say that a lot of what I say here is anticipated years earlier in his work. "Social life is made up of endless chains and multiple overlapping nets, with no clear boundaries. It is long stings .... It is only a messy mesh or, rather, mush. Social reality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

The MOOC



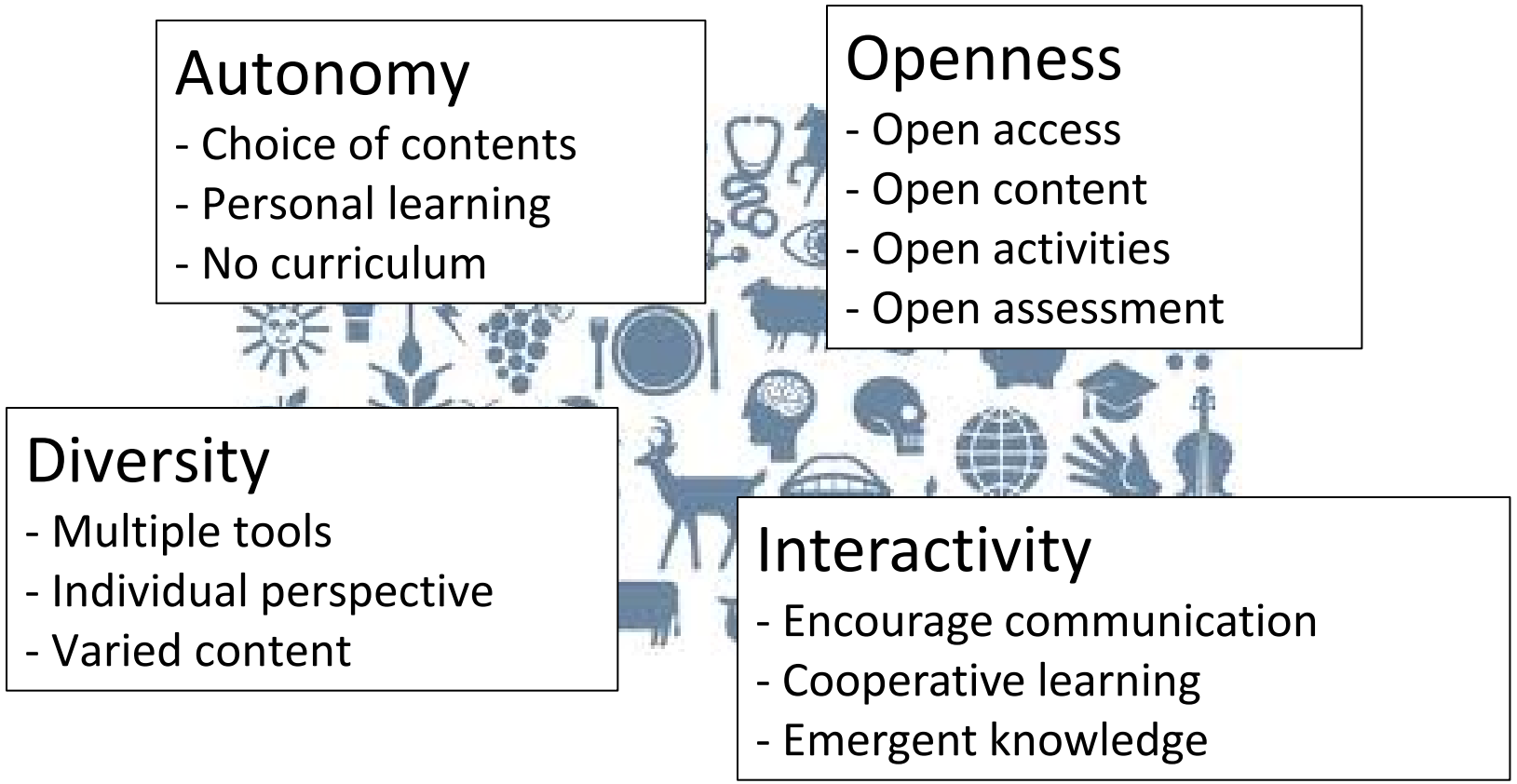
- Massive – by design
- Open – gratis and libre
- Online – not blended, not wrapped
- Courses – not communities, websites, video collections, etc

Massive Open Online Course



A MOOC is a Web, not a Website

Design Principles



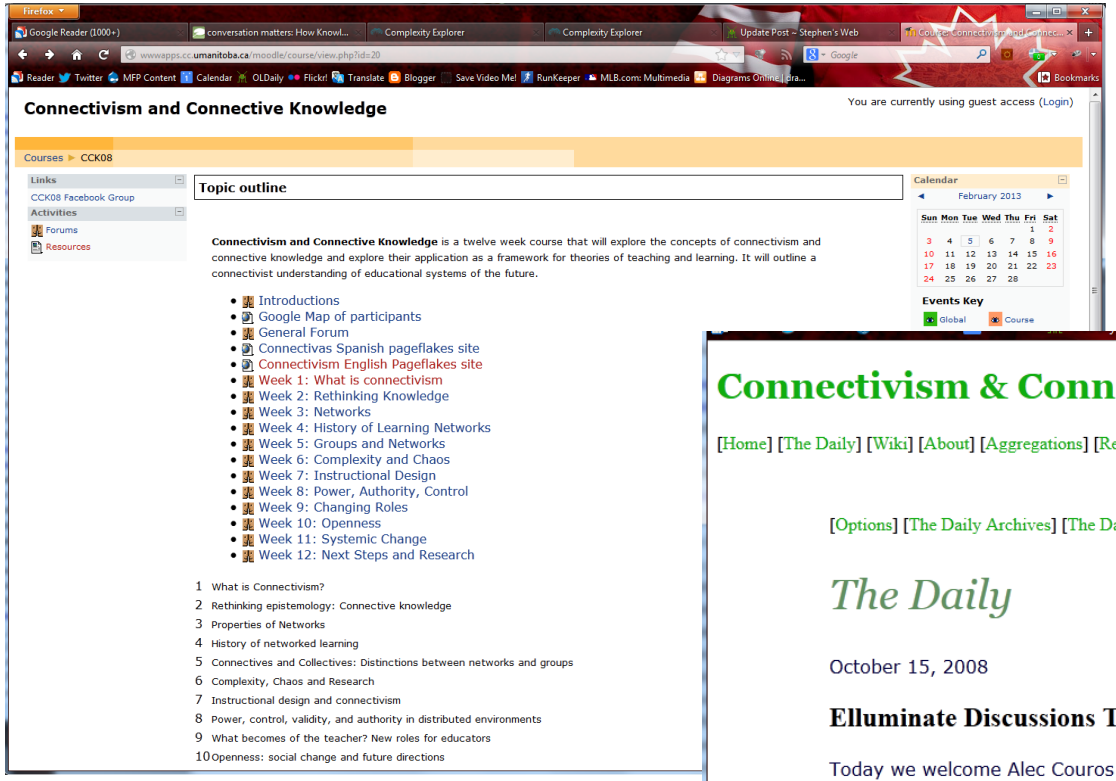
Autonomy
- Choice of contents
- Personal learning
- No curriculum

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

Diversity
- Multiple tools
- Individual perspective
- Varied content

Interactivity
- Encourage communication
- Cooperative learning
- Emergent knowledge

CCK08

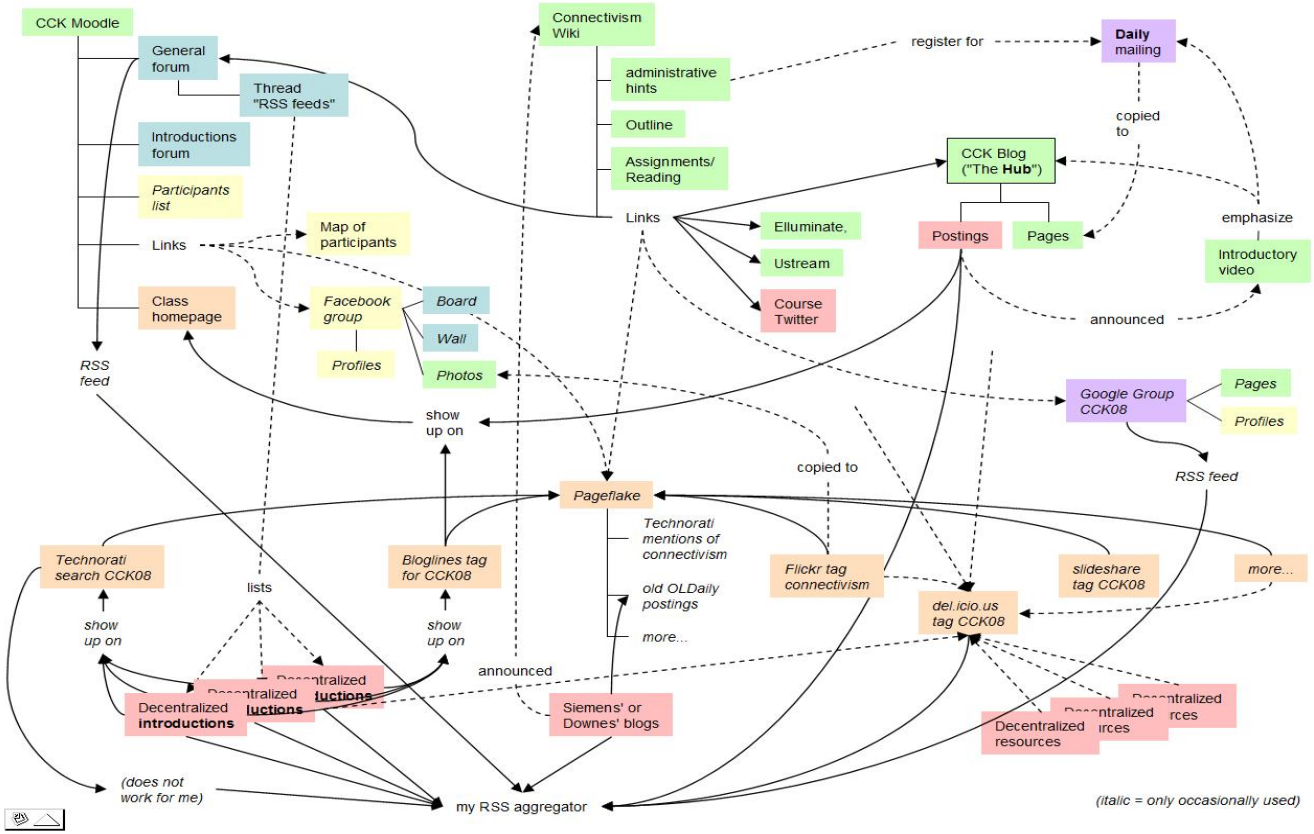


http://wwwapps.cc.umanitoba.ca/moodle/course/view.php?id=20

2300 students

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

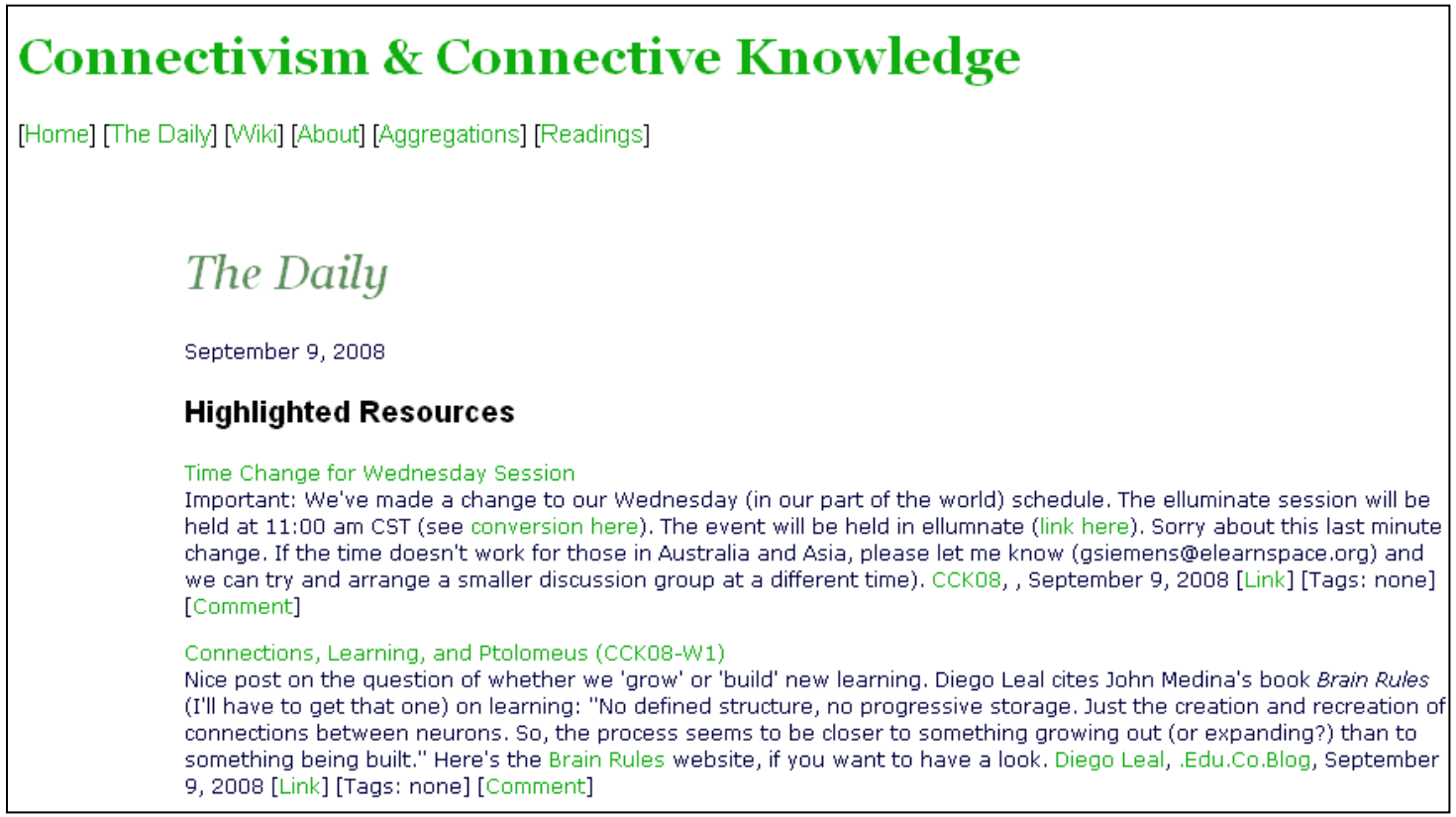
Connectivist MOOCs



http://x28newblog.blog.uni-heidelberg.de/2008/09/06/cck08-first-impressions/

Course Components

- The Daily



Connectivism & Connective Knowledge

[Home] [The Daily] [Wiki] [About] [Aggregations] [Readings]

The Daily

September 9, 2008

Highlighted Resources

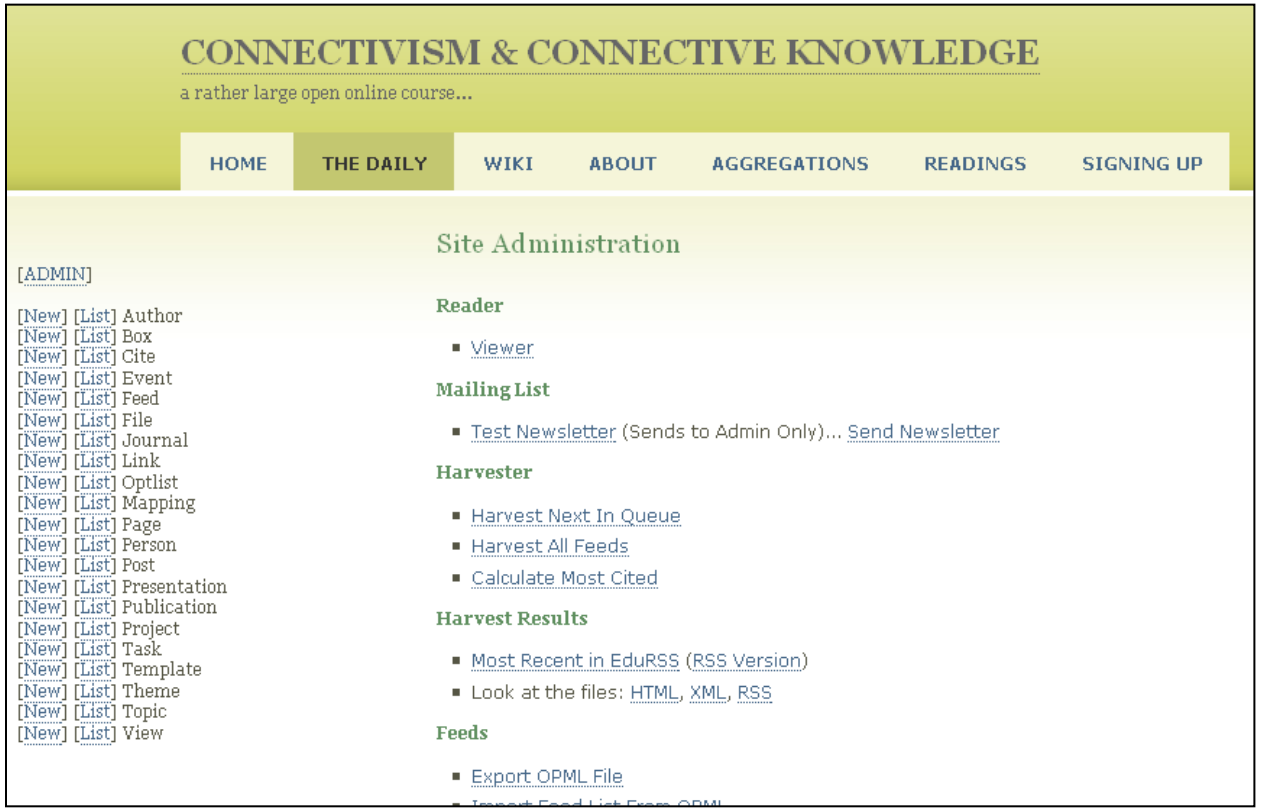
Time Change for Wednesday Session
Important: We've made a change to our Wednesday (in our part of the world) schedule. The elluminate session will be held at 11:00 am CST (see conversion here). The event will be held in ellumnate (link here). Sorry about this last minute change. If the time doesn't work for those in Australia and Asia, please let me know (gsiemens@elearnspace.org) 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/

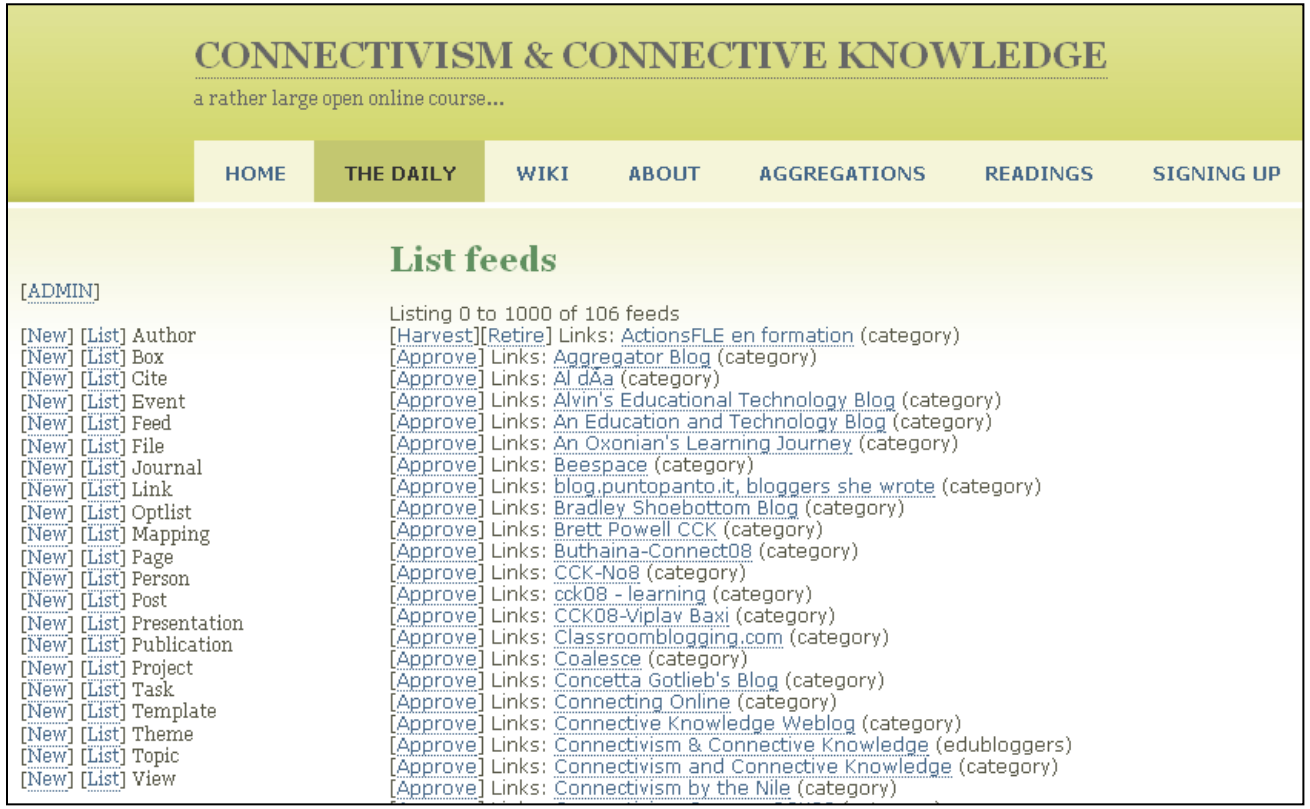
Course Components

- Managing Content



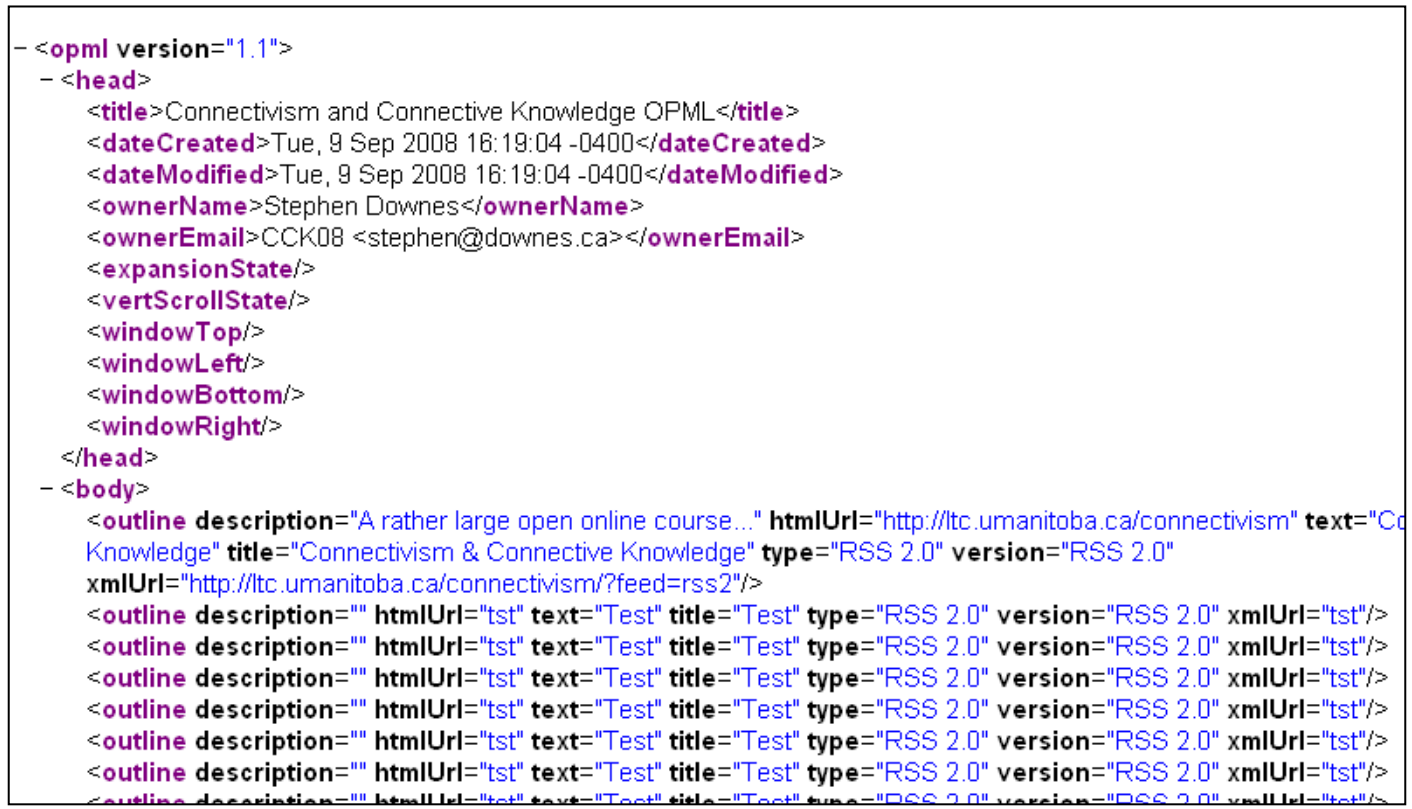
Course Components

- Feed Harvesting



Course Components

- OPML…



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      <ownerEmail>CCK08 <stephen@downes.ca></ownerEmail>
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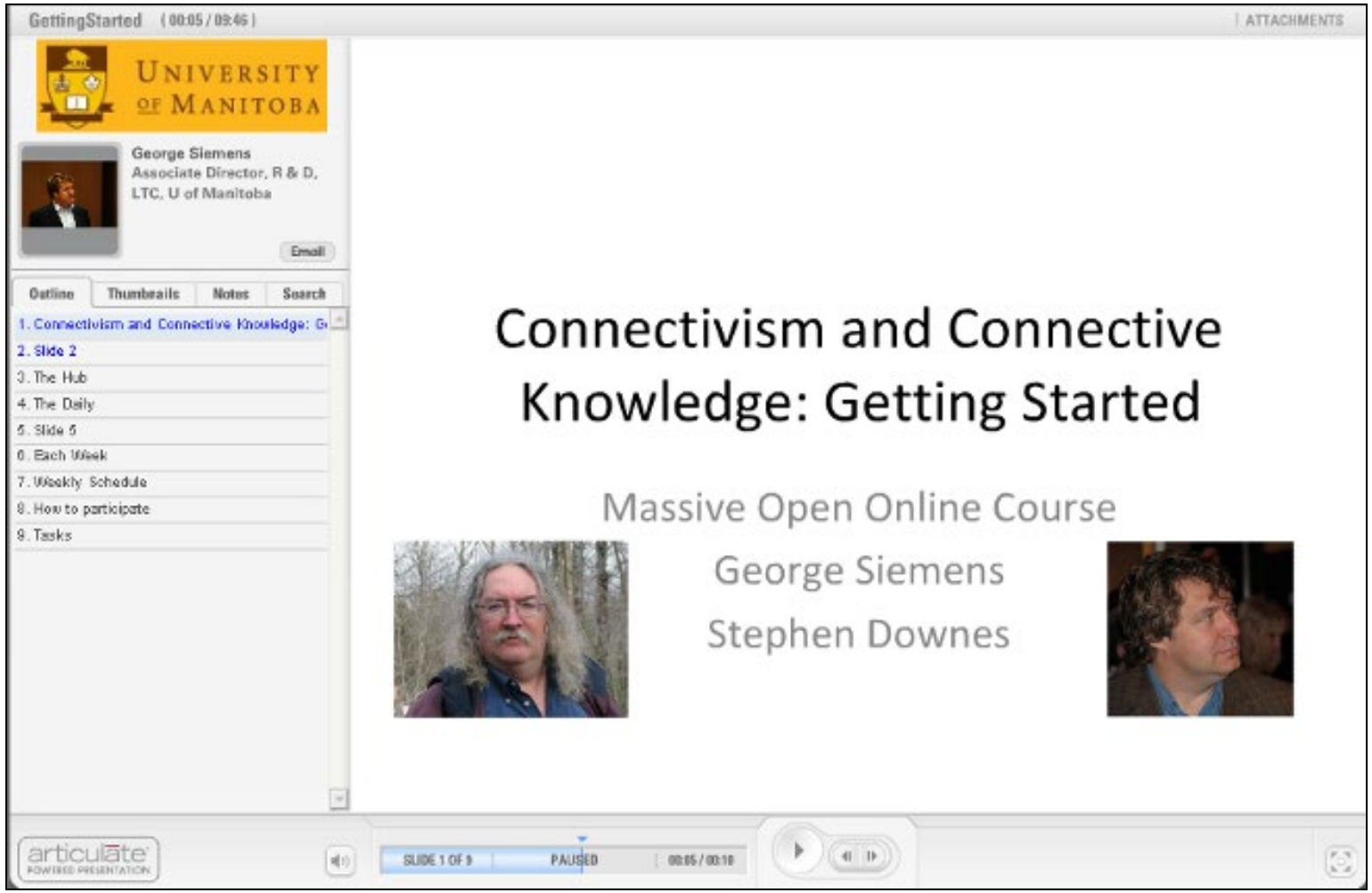
Course Components

- Intro…



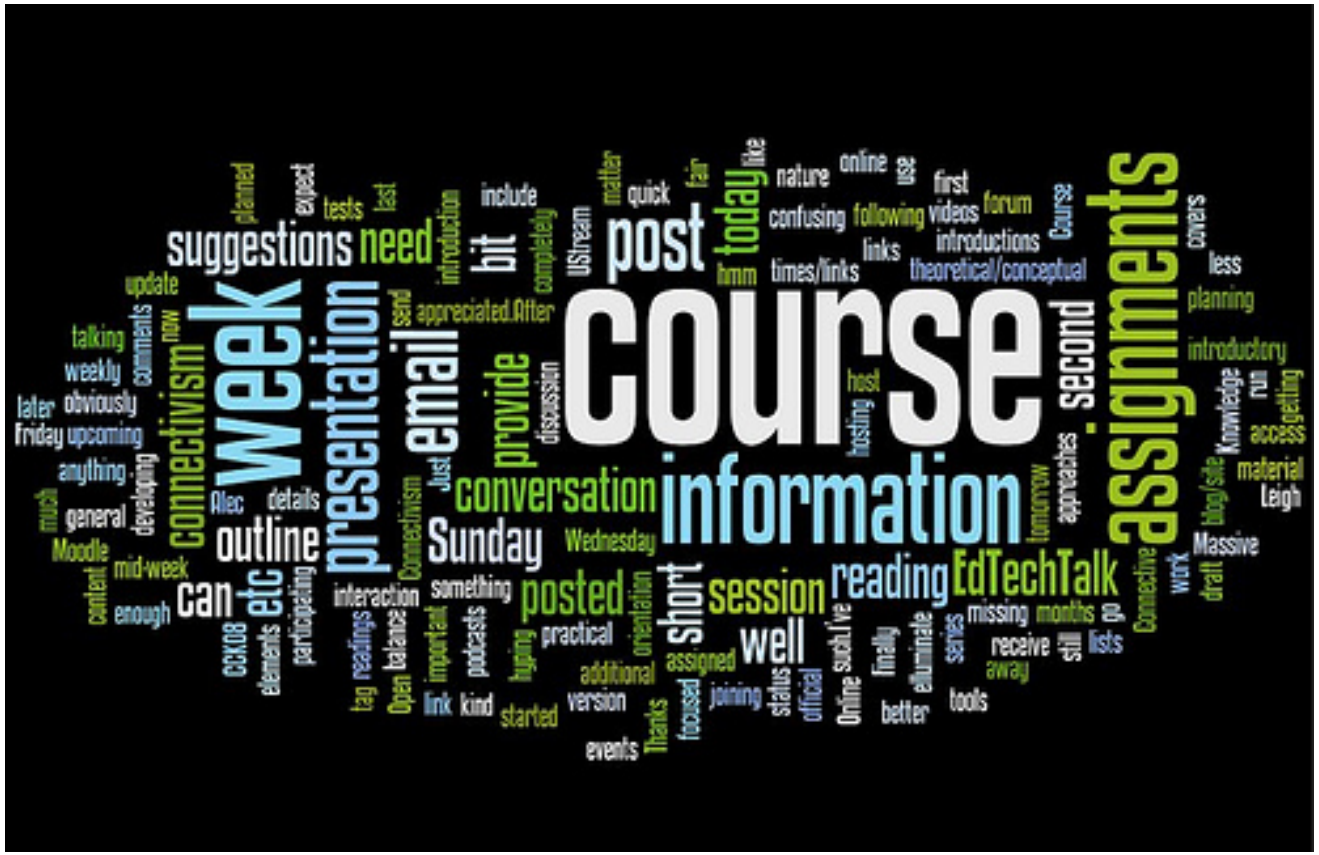
The Students

- The *Other* Course Map…

http://tinyurl.com/cck08map

The Students

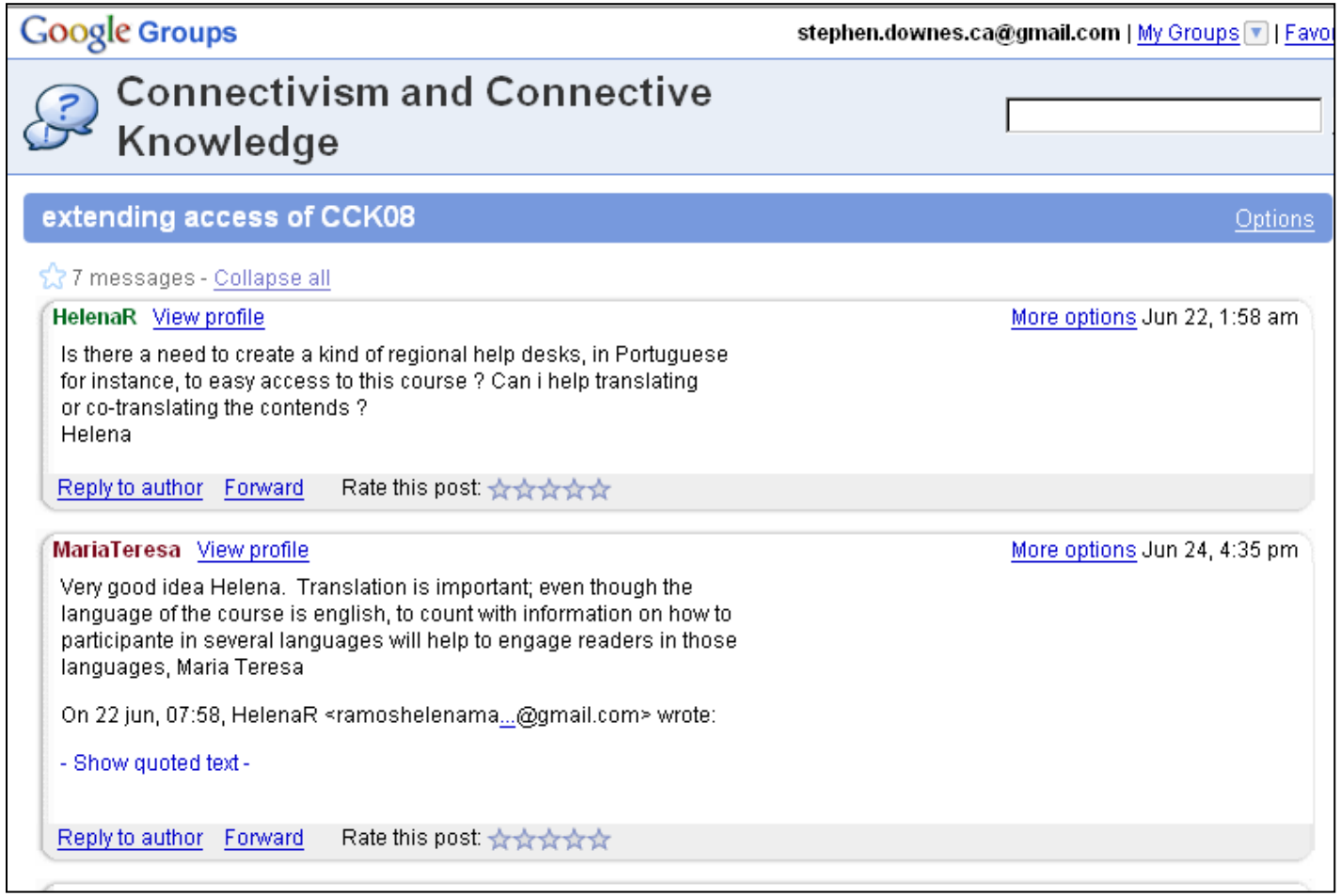
- Wordle…



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

The Students

- Google Groups



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

The Students

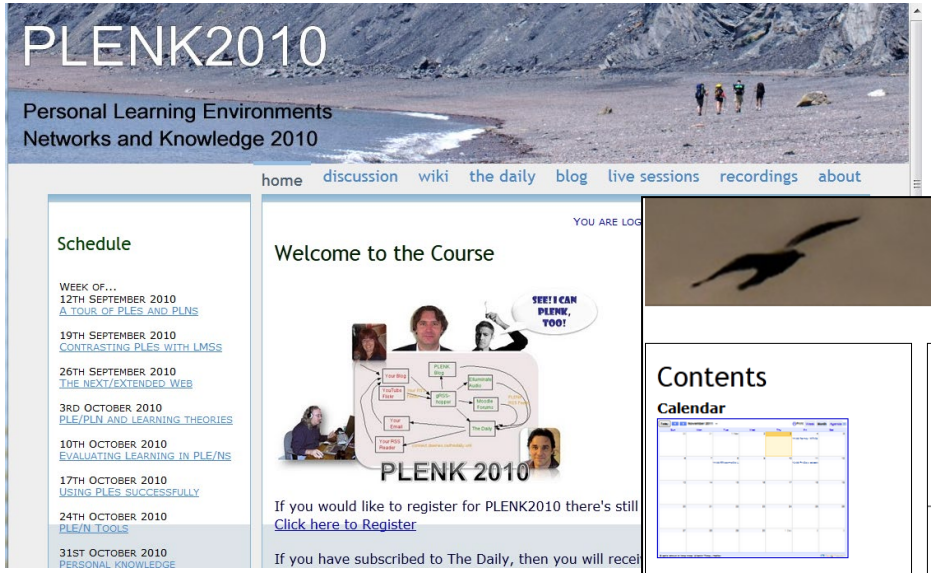
- Translations…

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

The Students

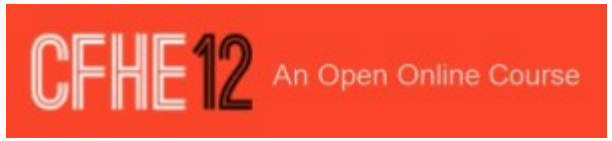
- Second Life…
- Diigo…
- de.l.icio.us
- WordPress…

OTHER COURSES



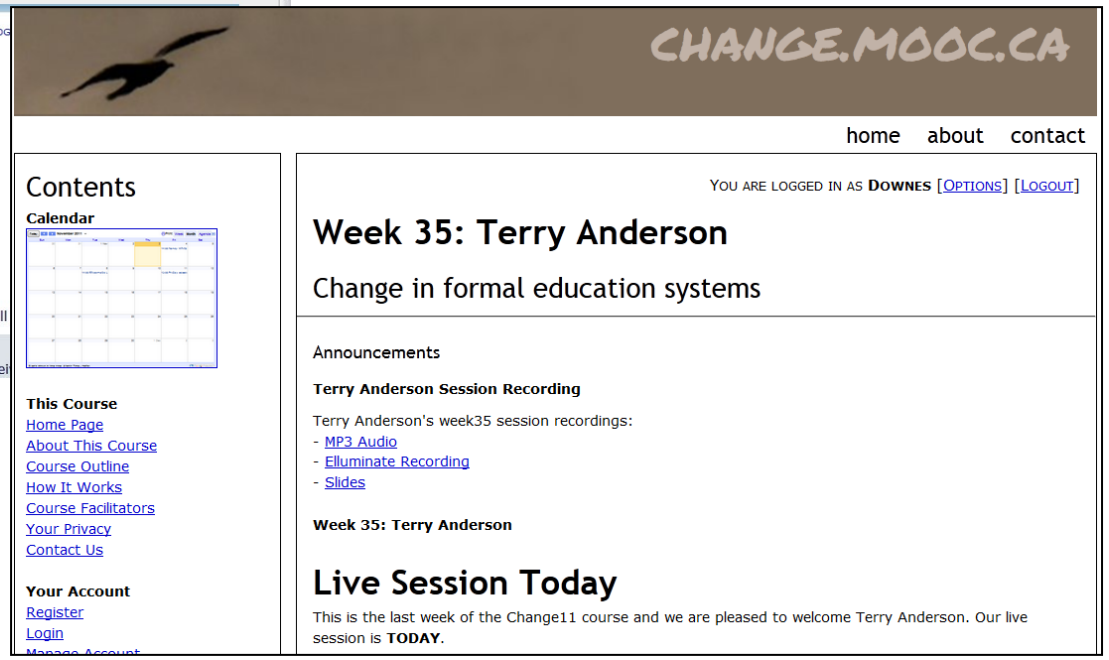
1800 students

http://connect.downes.ca/



3000 students

http://edfuture.net/



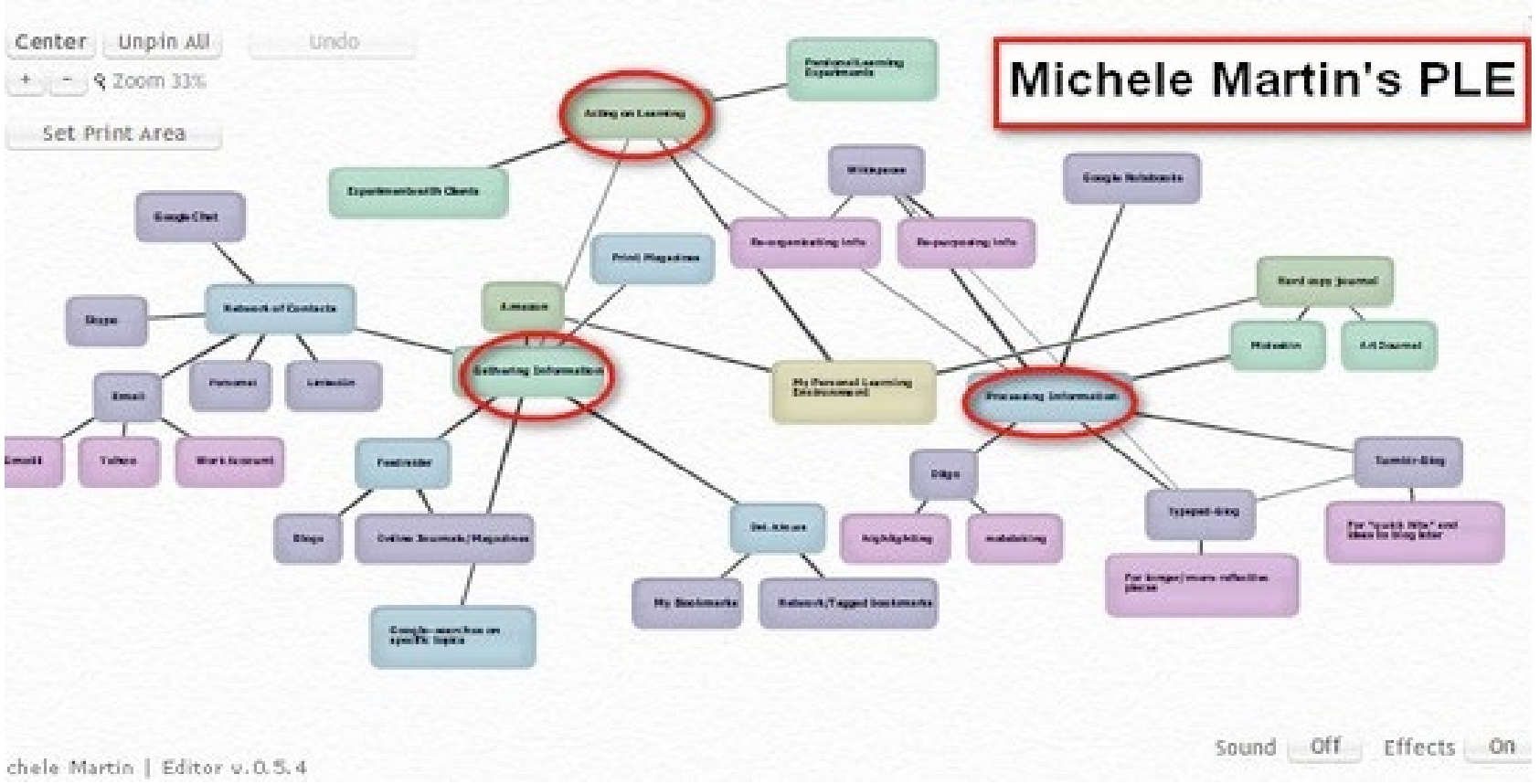
2800 students

http://change.mooc.ca/

Most Recently

MOOC REL 2014
http://rel2014.mooc.ca

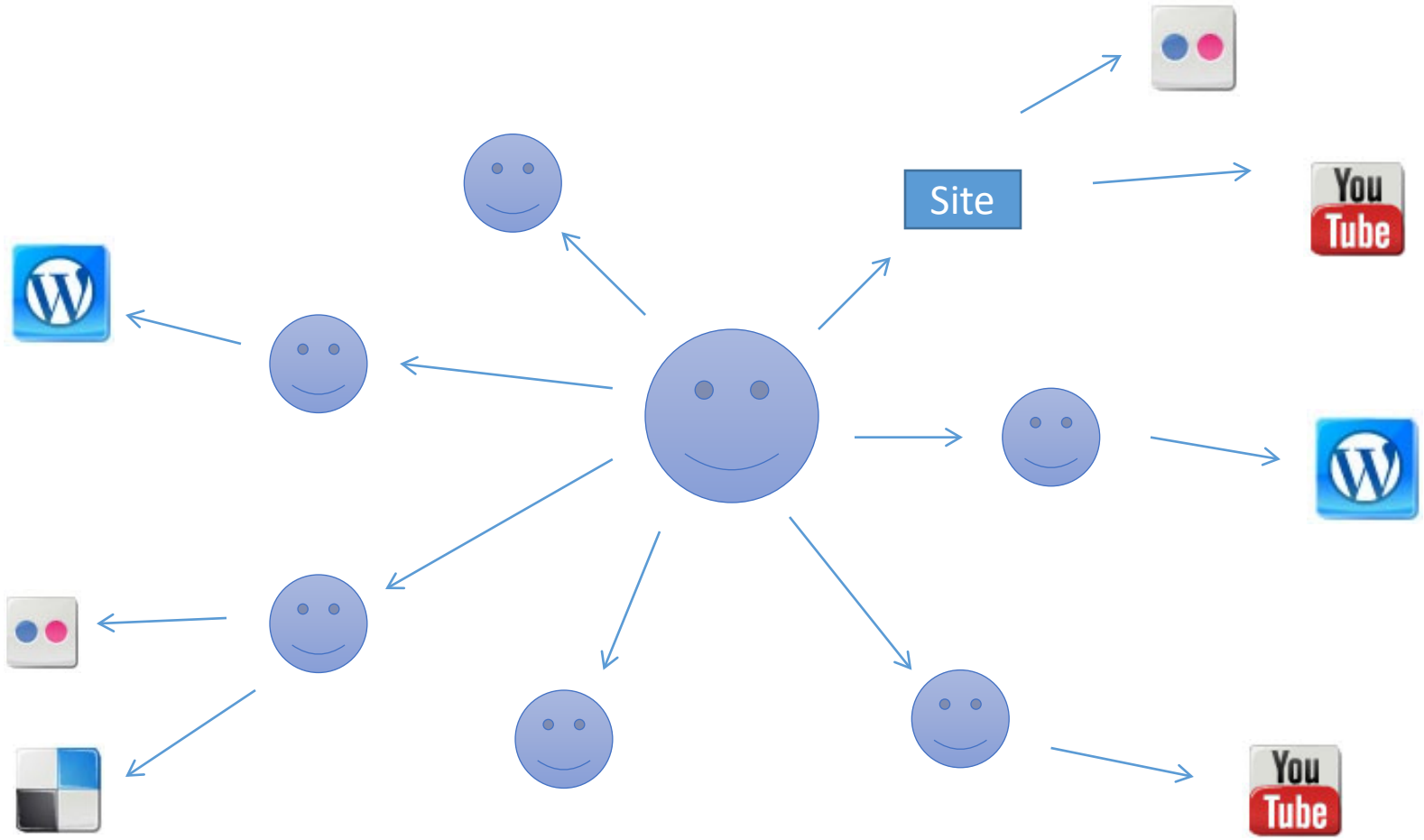
Personal Learning



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

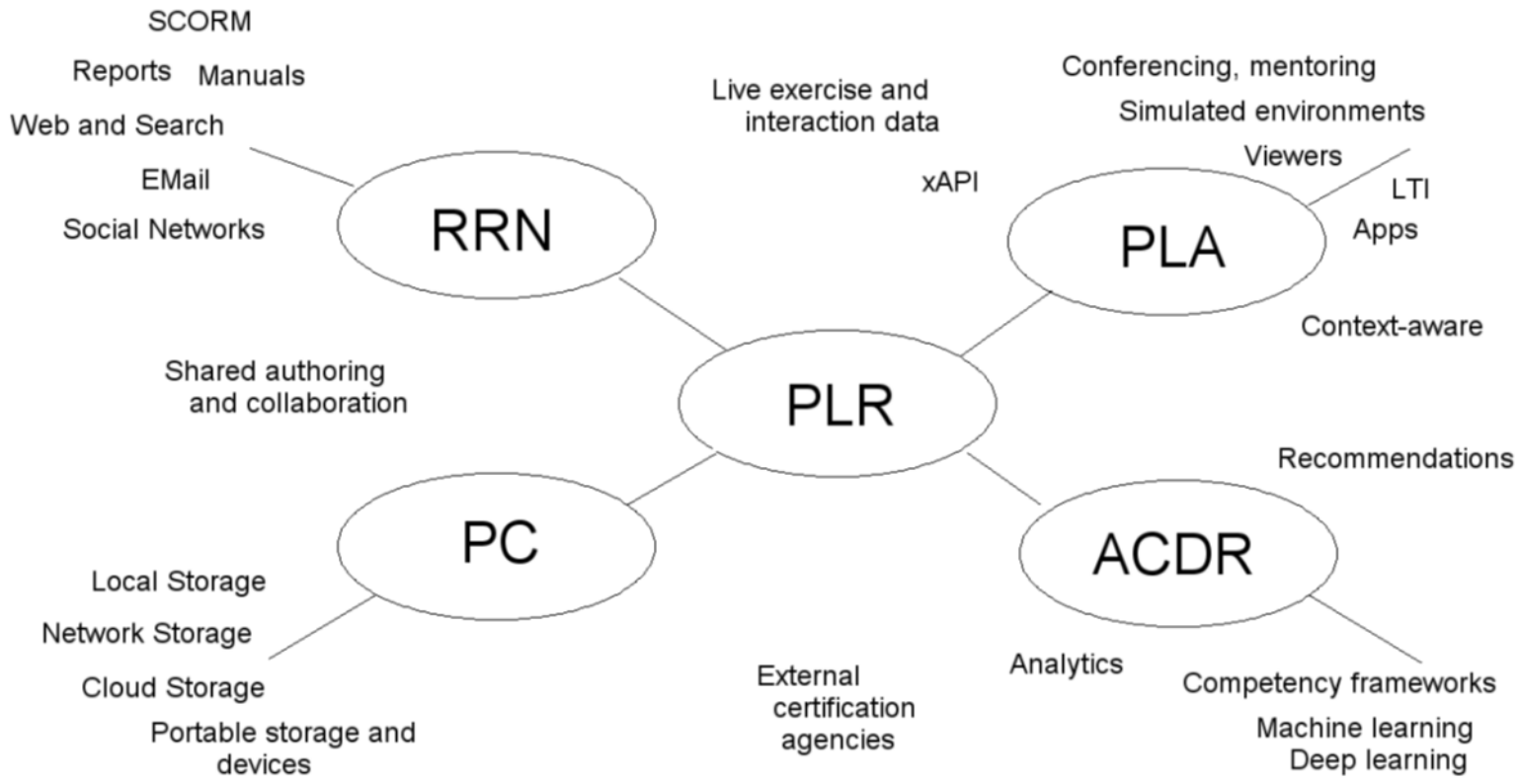
http://www.downes.ca/post/58150

The Student's Perspective

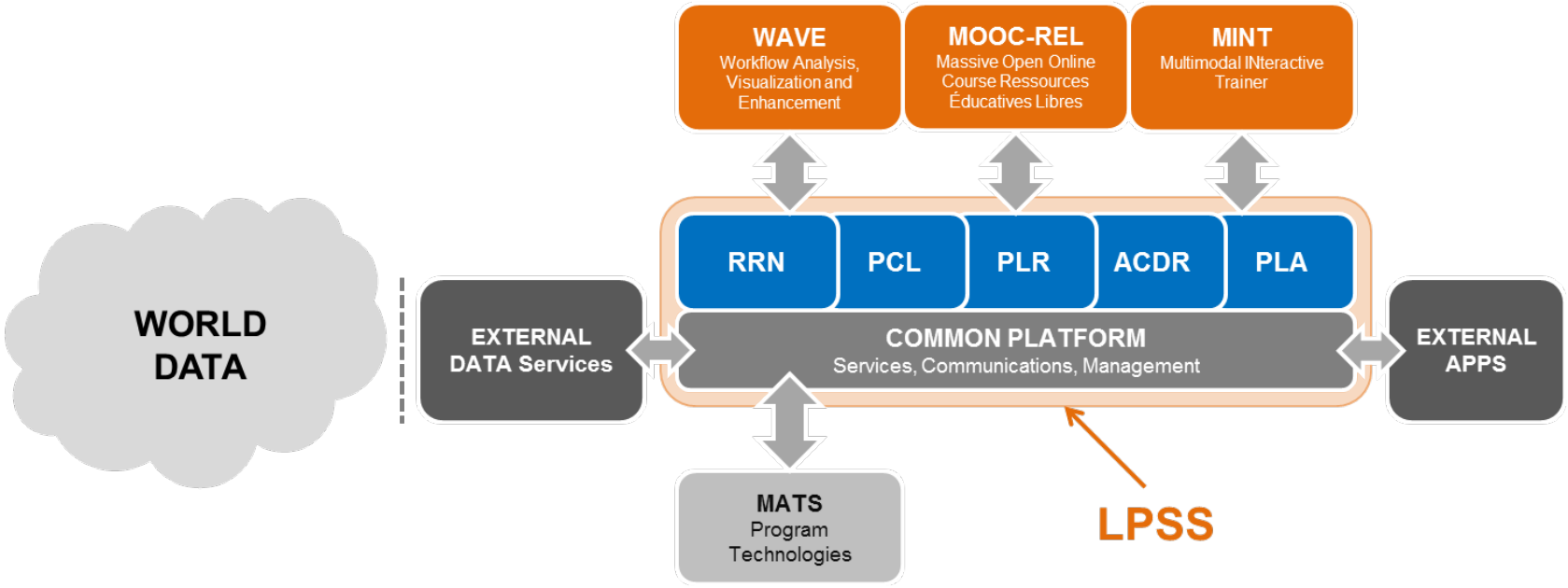


A range of different resources and services

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