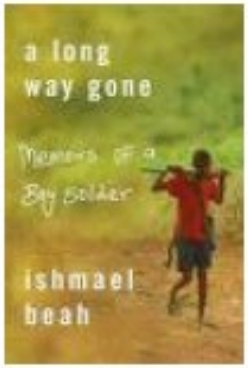
New Tools for Personal Learning

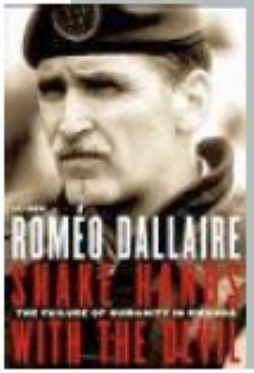
Stephen Downes

MEFANET 2009 Conference

Brno, Czech Republic, November 25, 2009

Prologue

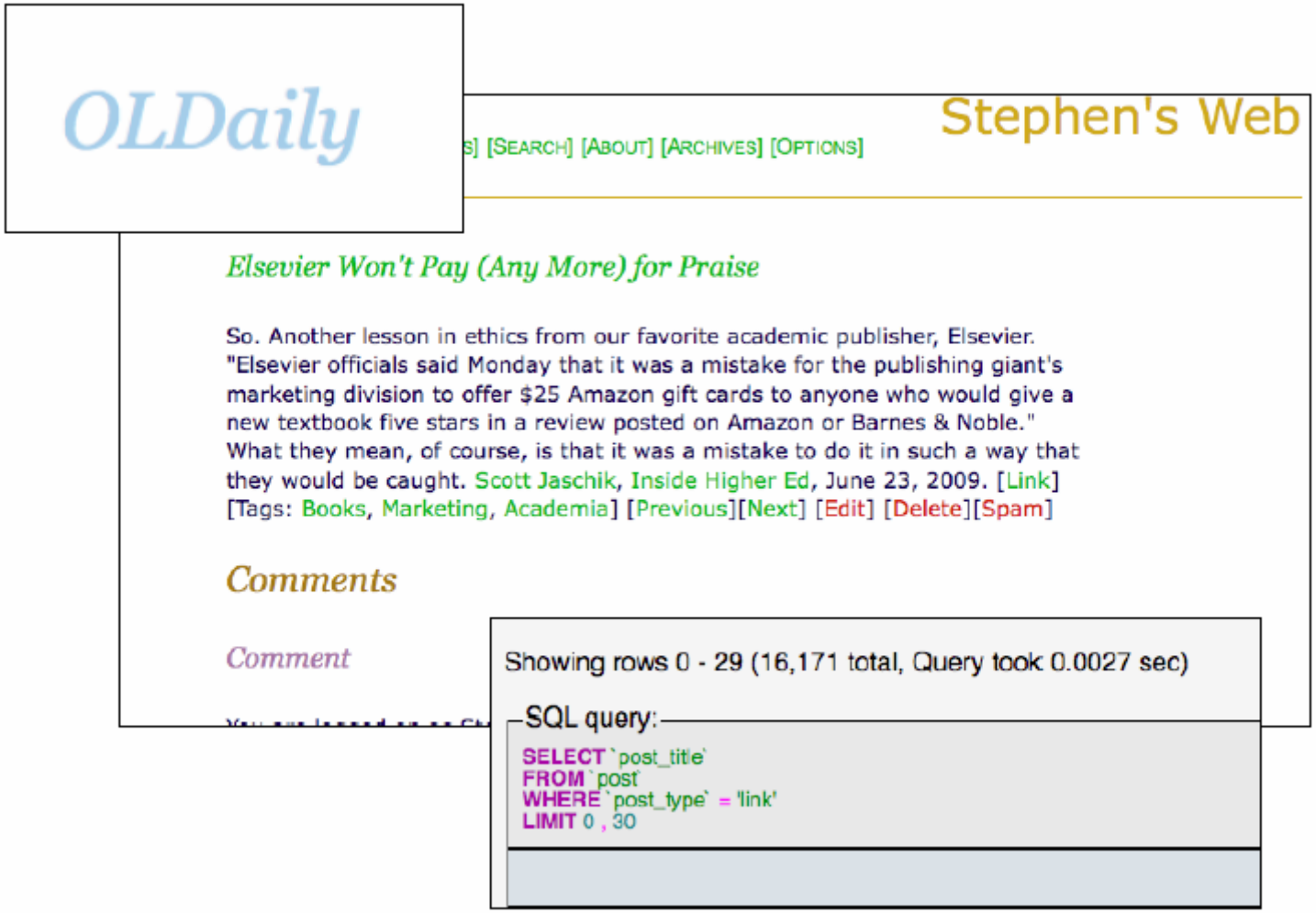




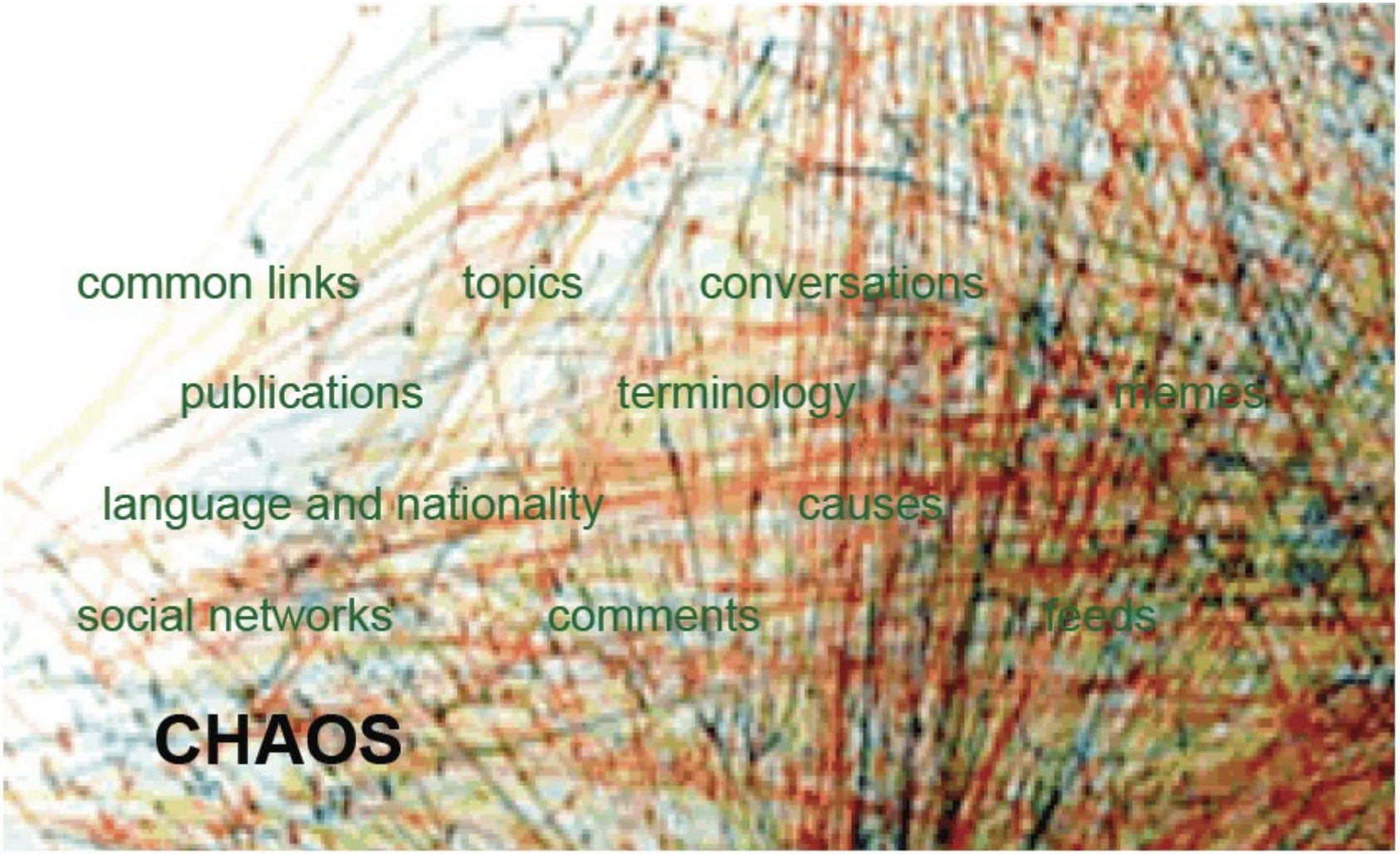
- It turns out to be very easy to teach people things - people are very impressionable
- What proves to be very hard is teaching people the right things - how *not* to learn

http://www.surgeryminor.com/showcase/propaganda.html

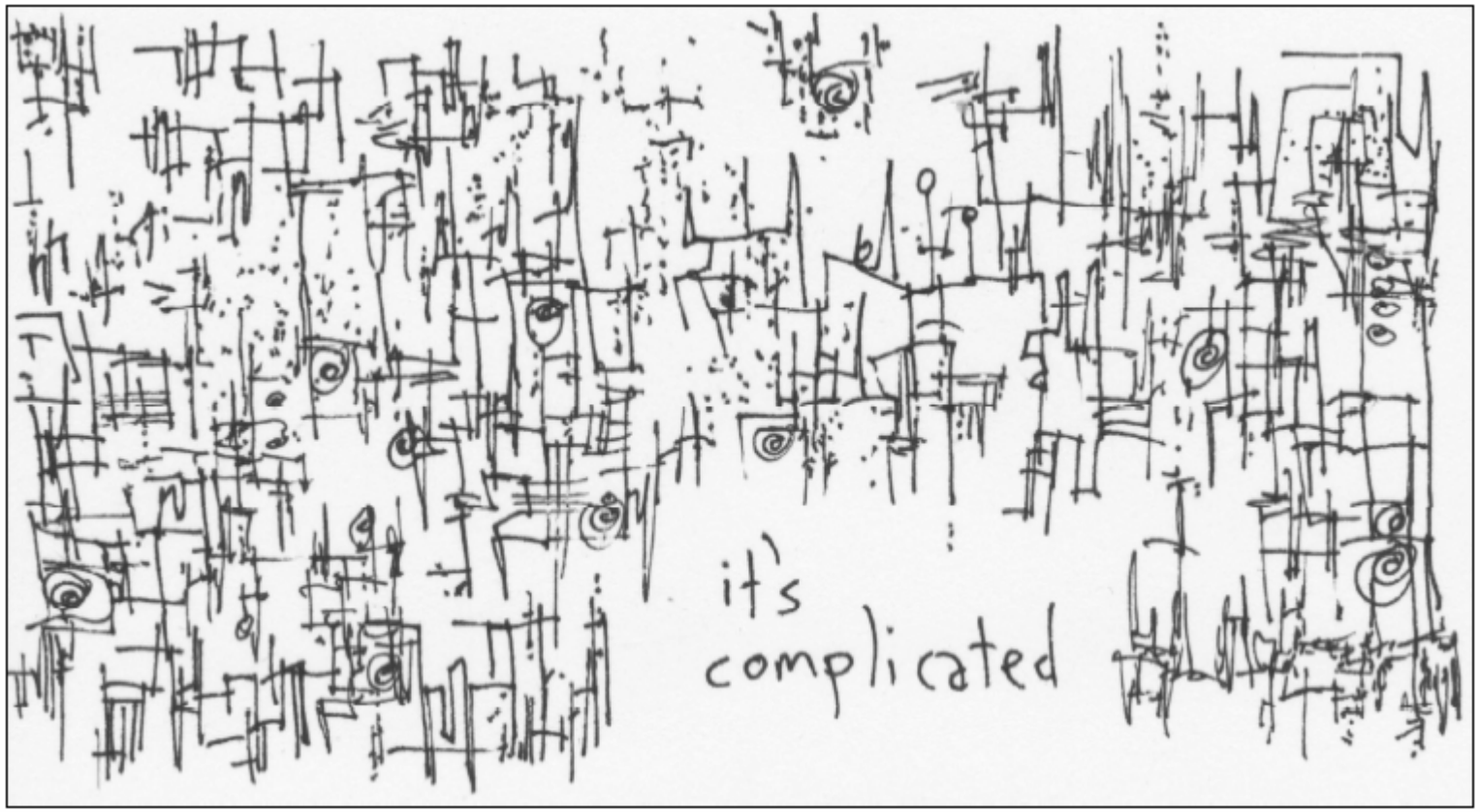
What I do


OLDaily
Stephen's Web
S] [SEARCH] [ABOUT] [ARCHIVES] [OPTIONS]
Elsevier Won't Pay (Any More) for Praise
So. Another lesson in ethics from our favorite academic publisher, Elsevier. "Elsevier officials said Monday that it was a mistake for the publishing giant's marketing division to offer $25 Amazon gift cards to anyone who would give a new textbook five stars in a review posted on Amazon or Barnes & Noble." What they mean, of course, is that it was a mistake to do it in such a way that they would be caught. Scott Jaschik, Inside Higher Ed, June 23, 2009. [Link] [Tags: Books, Marketing, Academia] [Previous][Next] [Edit] [Delete][Spam]
Comments
Comment
Showing rows 0 - 29 (16,171 total, Query took 0.0027 sec)
SQL query:
SELECT `post_title`
FROM `post`
WHERE `post_type` = 'link'
LIMIT 0 , 30

What does 16,000 posts look like?



Complicated, Complex

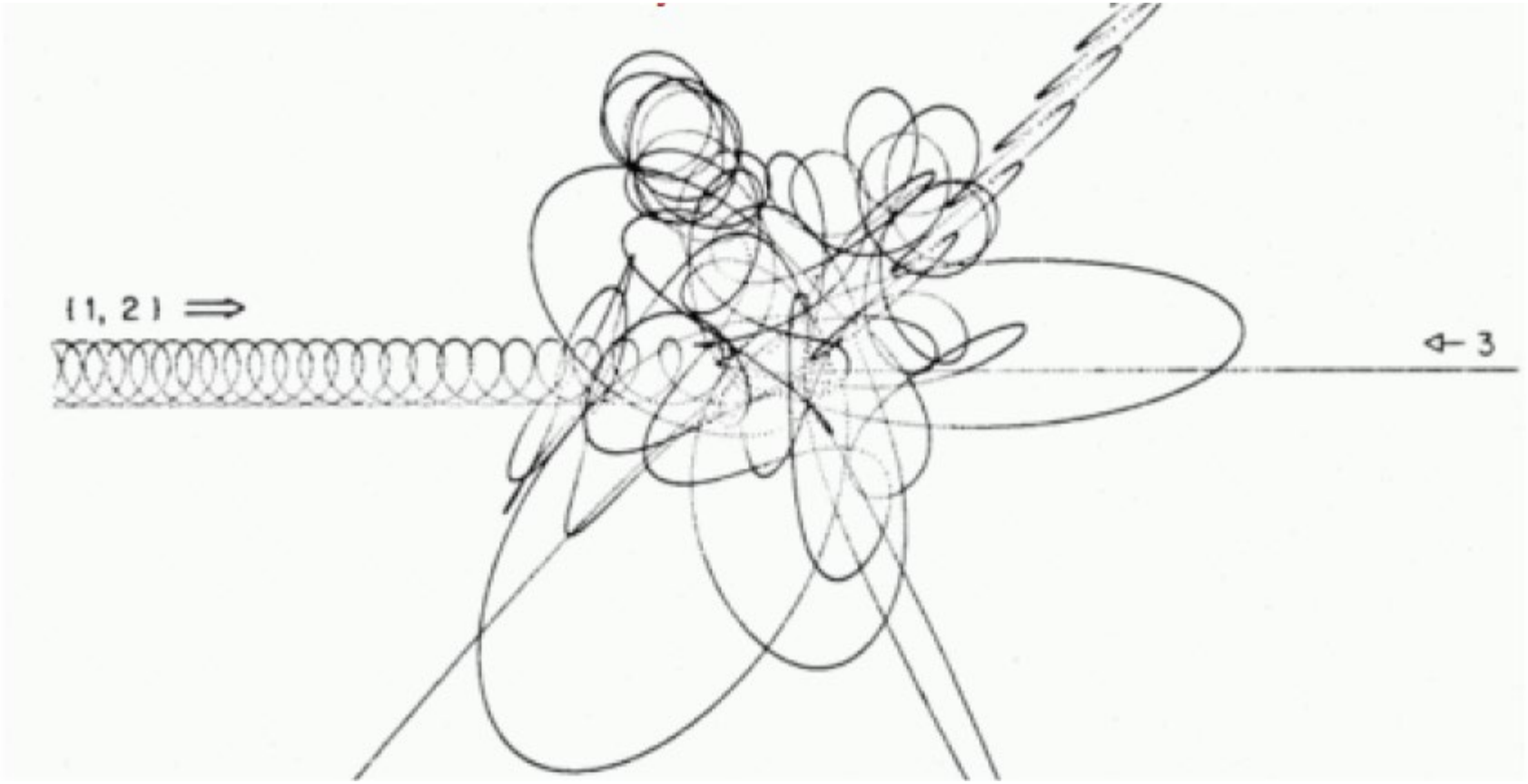


http://www.gapingvoid.com/complicated128.jpg

The (First) Butterfly Thesis

a butterfly flapping its wings in South America can affect the weather in Central Park…. so why don’t we get that butterfly?

The Three Body Problem



http://www.scholarpedia.org/article/Three-body_problem

http://www.dynamical-systems.org/threebody/index.html

Connectivism: Engagement

- There is no curriculum, no theory, no body of knowledge
  - (or, more accurately, the curriculum is the McGuffin)
- The product is not the knowledge, it is the *learner*
- It's not that there's nothing to learn, it's that it's *complex* and needs to be navigated… not memorized

The three Ls: language, logic and learning

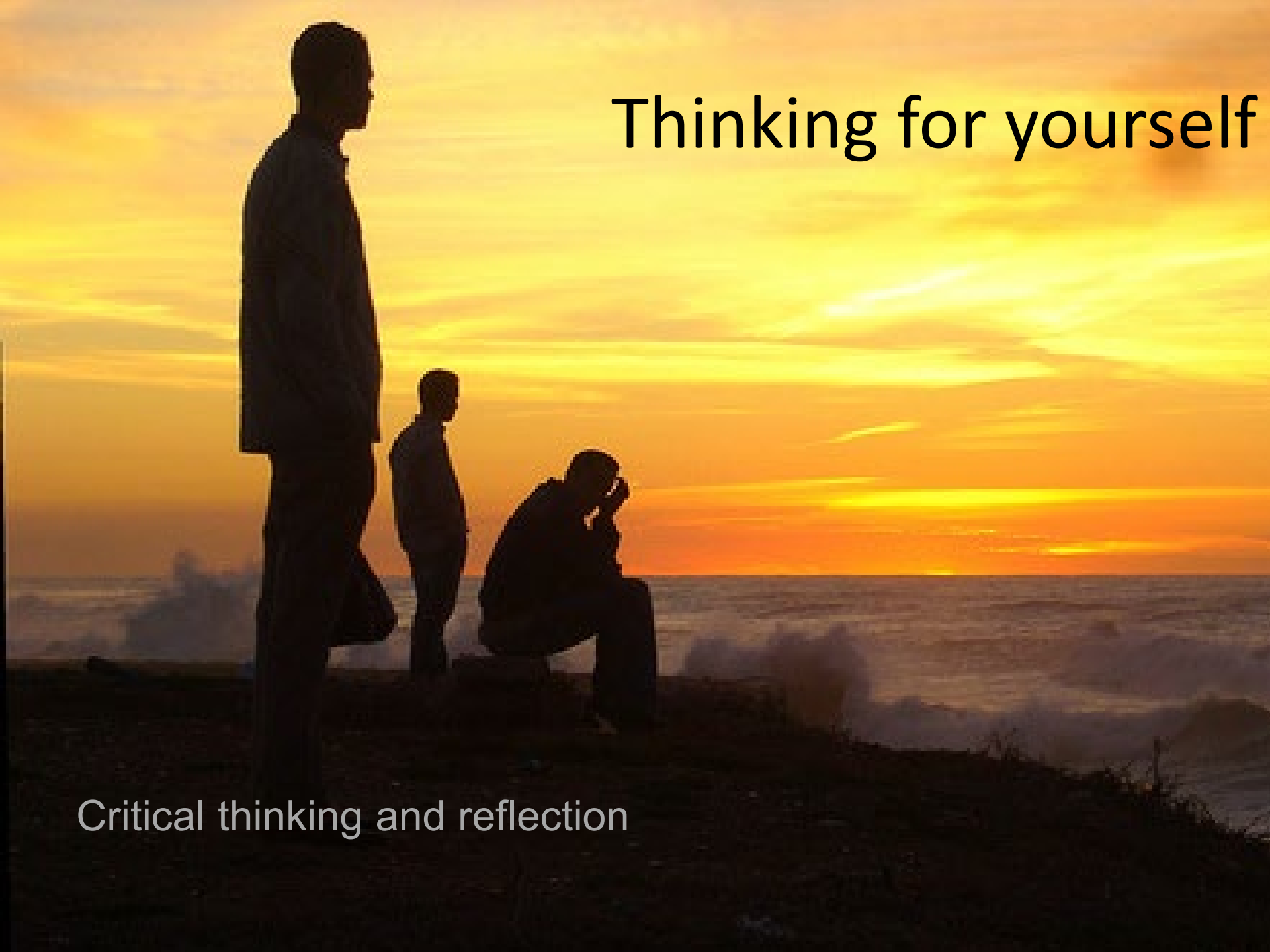
First Theme

active engagement, not passive observation…

- a bit like ANT, but no presumption of commonality, translation…
- a bit like action research, but no presumption of a community of practice

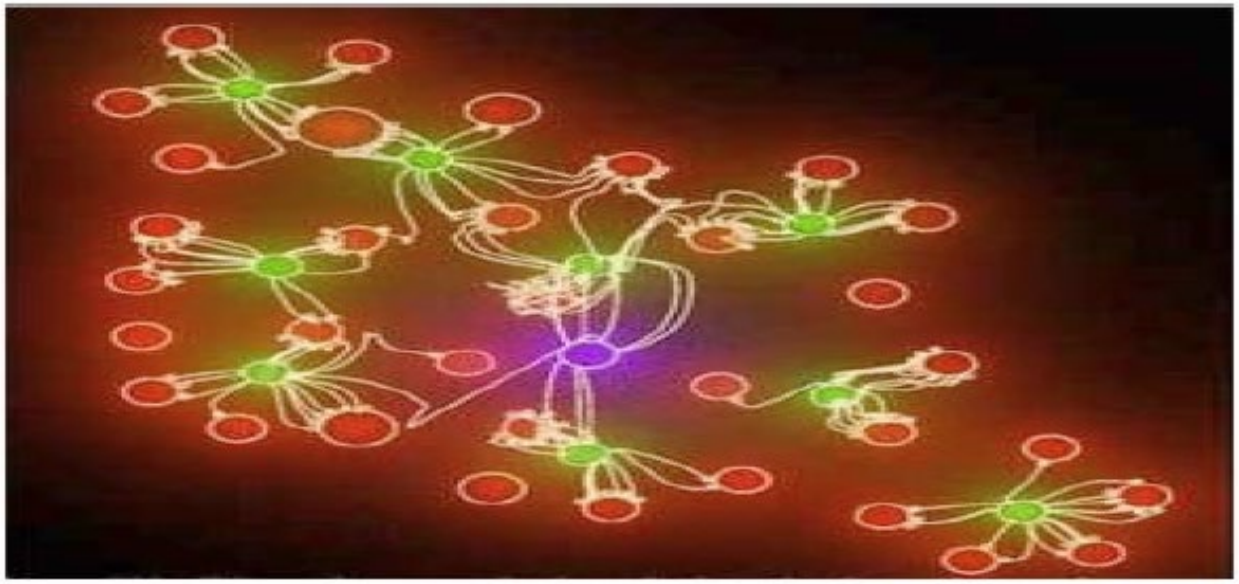
http://carbon.cudenver.edu/~mryder/itc_data/ant_dff.html

http://www.emtech.net/actionresearch.htm

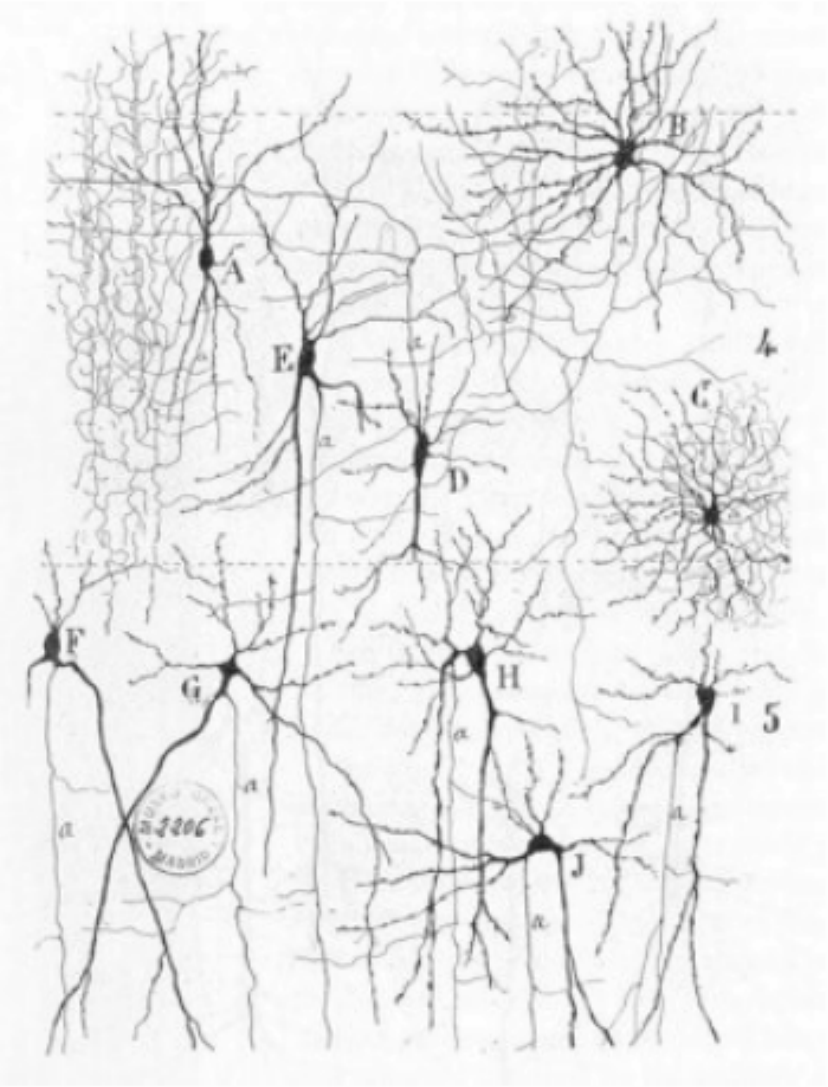

Thinking for yourself
Critical thinking and reflection

Free Learning

- The *picture* of learning you should have is one of a large set of connected nodes (like the neurons in a brain)



- Teachers are nodes, students are nodes
- Both teaching and learning consists of sending and receiving communications to other nodes

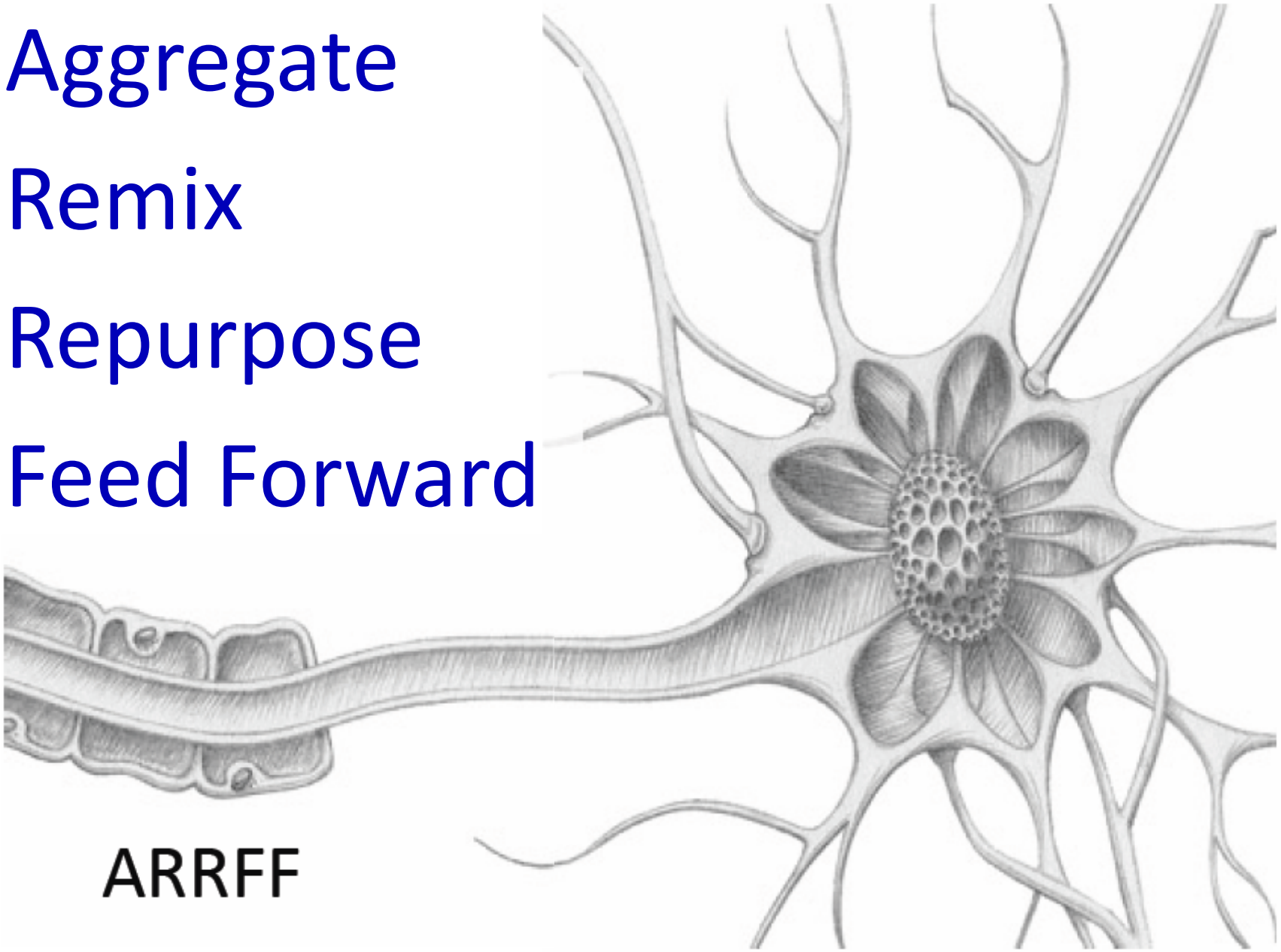


Aggregate

Remix

Repurpose

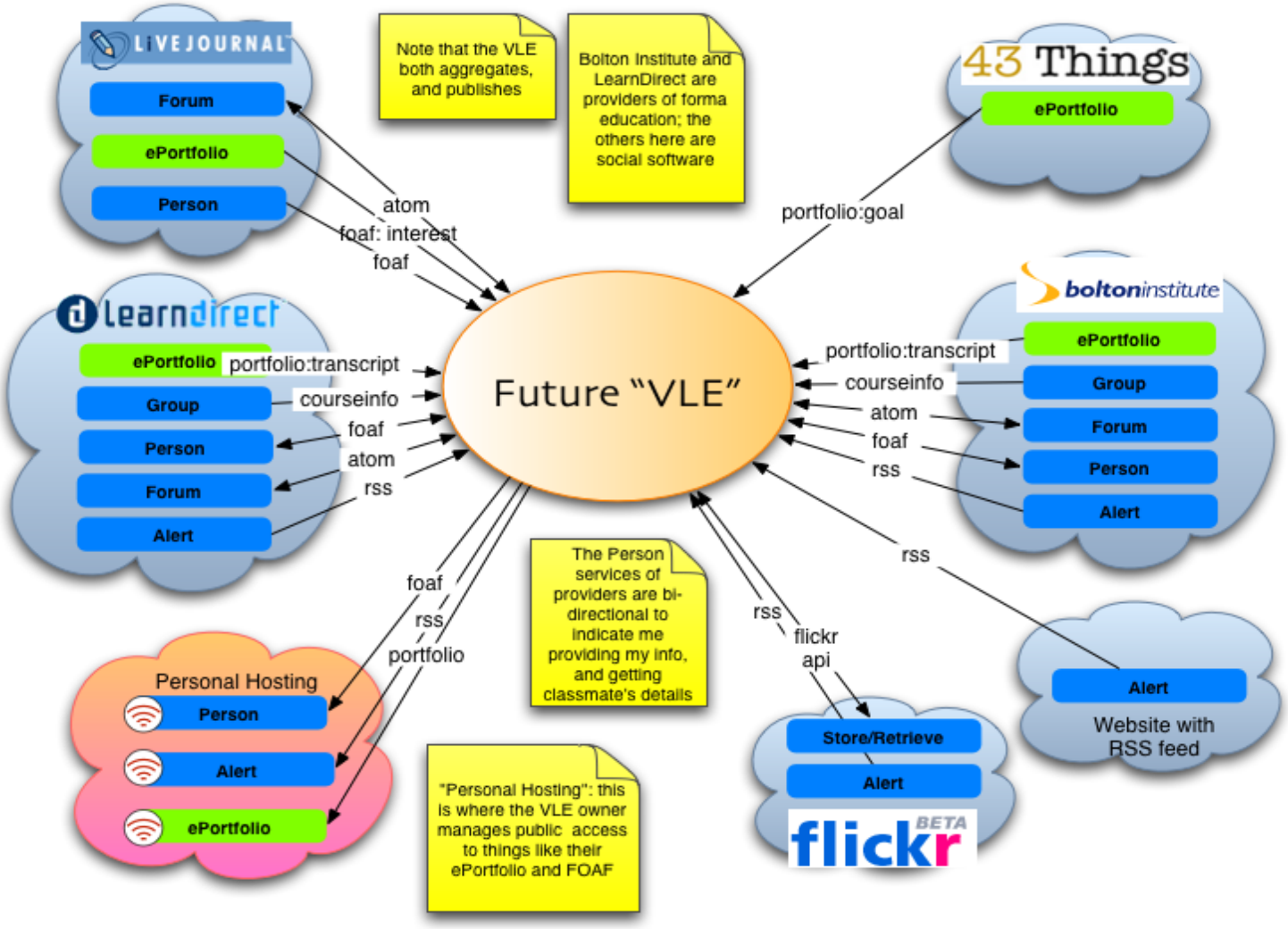
Feed Forward



ARRFF

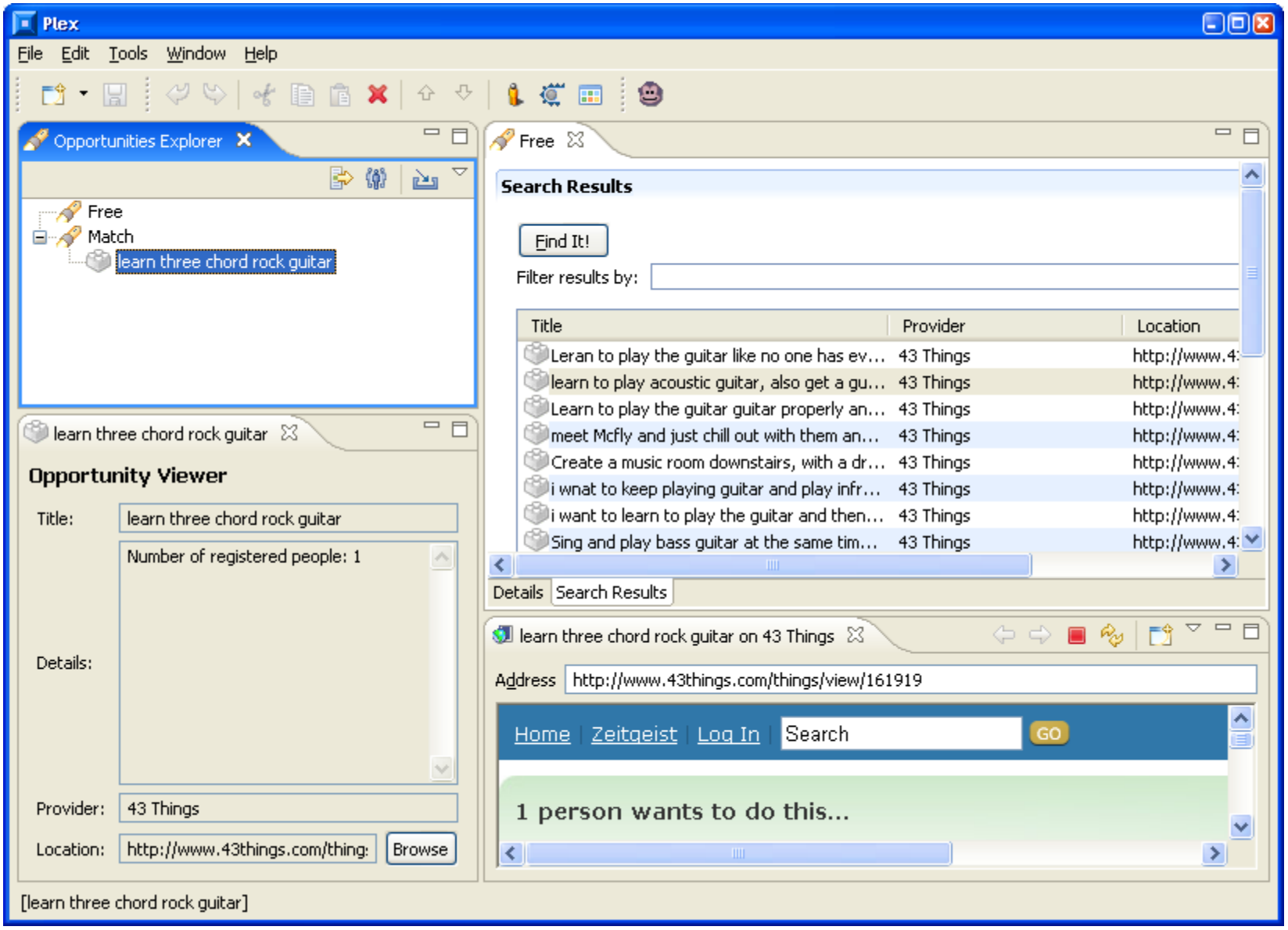
pattern recognition
It’s a river, not a reservoir
Surfing
Sensing
Experiencing

The Idea of the PLE…



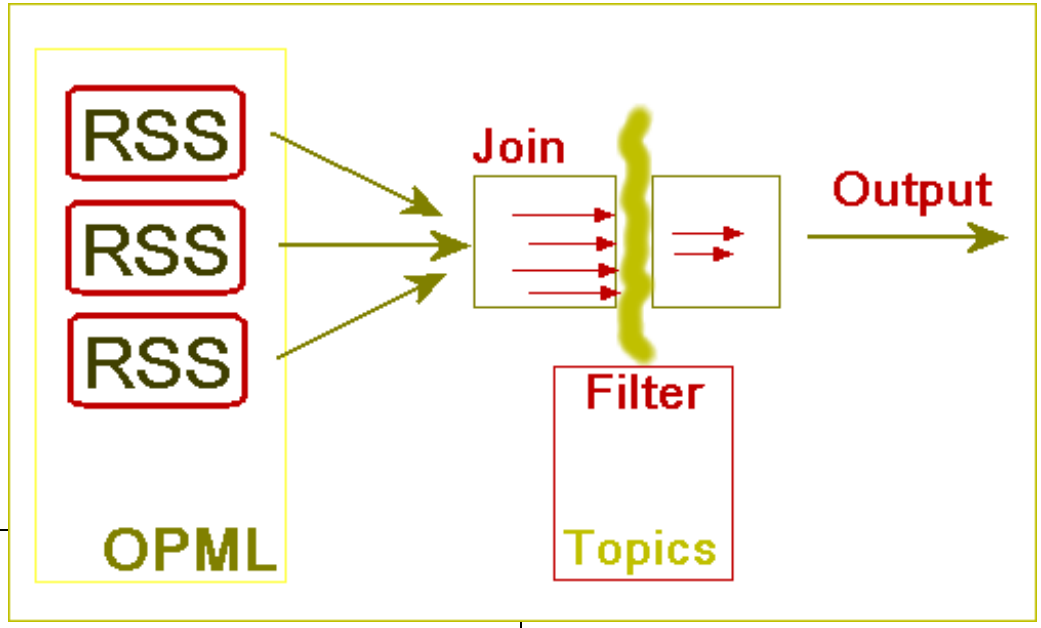
http://www.cetis.ac.uk/members/ple/resources/edf.ppt

Plex Personal Learning Environment Example



http://reload.ces.strath.ac.uk/plex/

Collecting and Filtering RSS



http://www.downes.ca/mygluframe.htm

MyGlu

By Stephen Downes

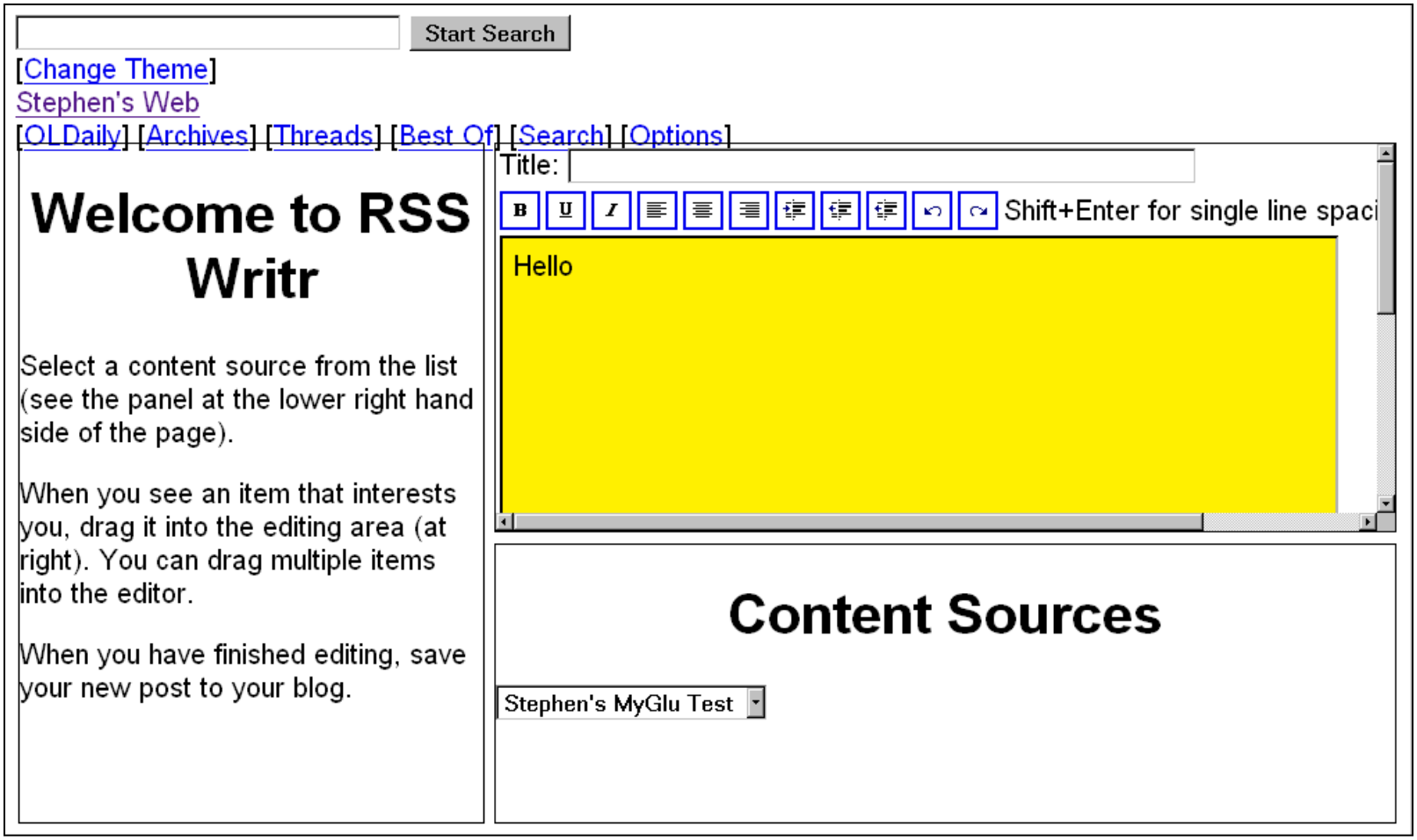
About

Force: 1

Harvesting http://del.icio.us/rss/Downes
Feedfile is: myglu/feedcache/del.icio.us_rss_Downes
No content. Harvesting from source.
URL: http://del.icio.us/rss/Downes
Parsing Feed=HASH(0x9f0f10c)

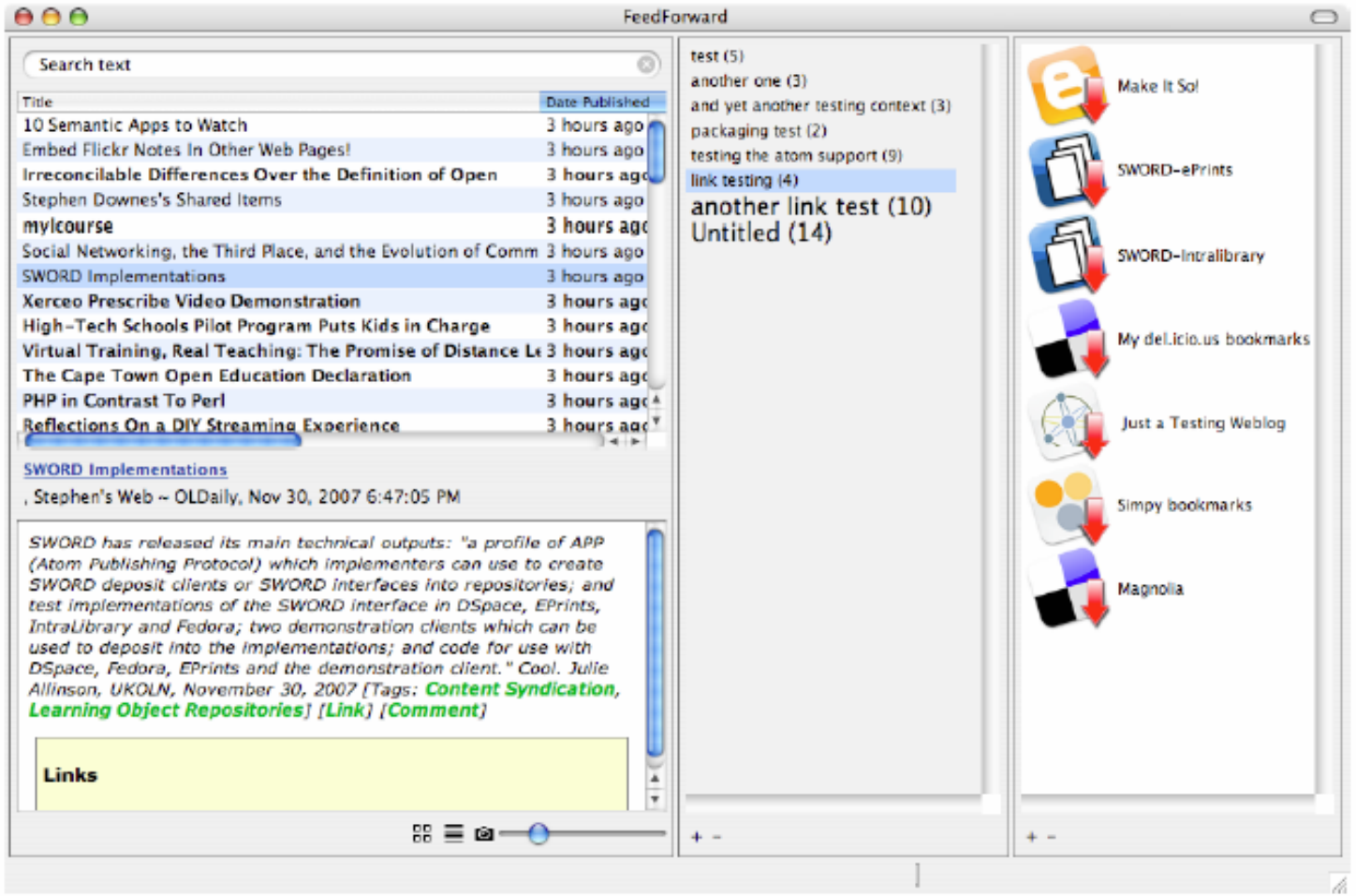
Harvesting http://www.downes.ca/news/OLDaily.xml
Feedfile is: myglu/feedcache/www.downes.ca_news_OLDaily.xml
No content. Harvesting from source.
URL: http://www.downes.ca/news/OLDaily.xml
Parsing Feed=HASH(0x9f0ef8c)

RSS Writr



http://www.downes.ca/editor/writr.htm

FeedForward



http://blogs.cetis.ac.uk/feedforward/

Second Theme

Learning…. vs the right learning

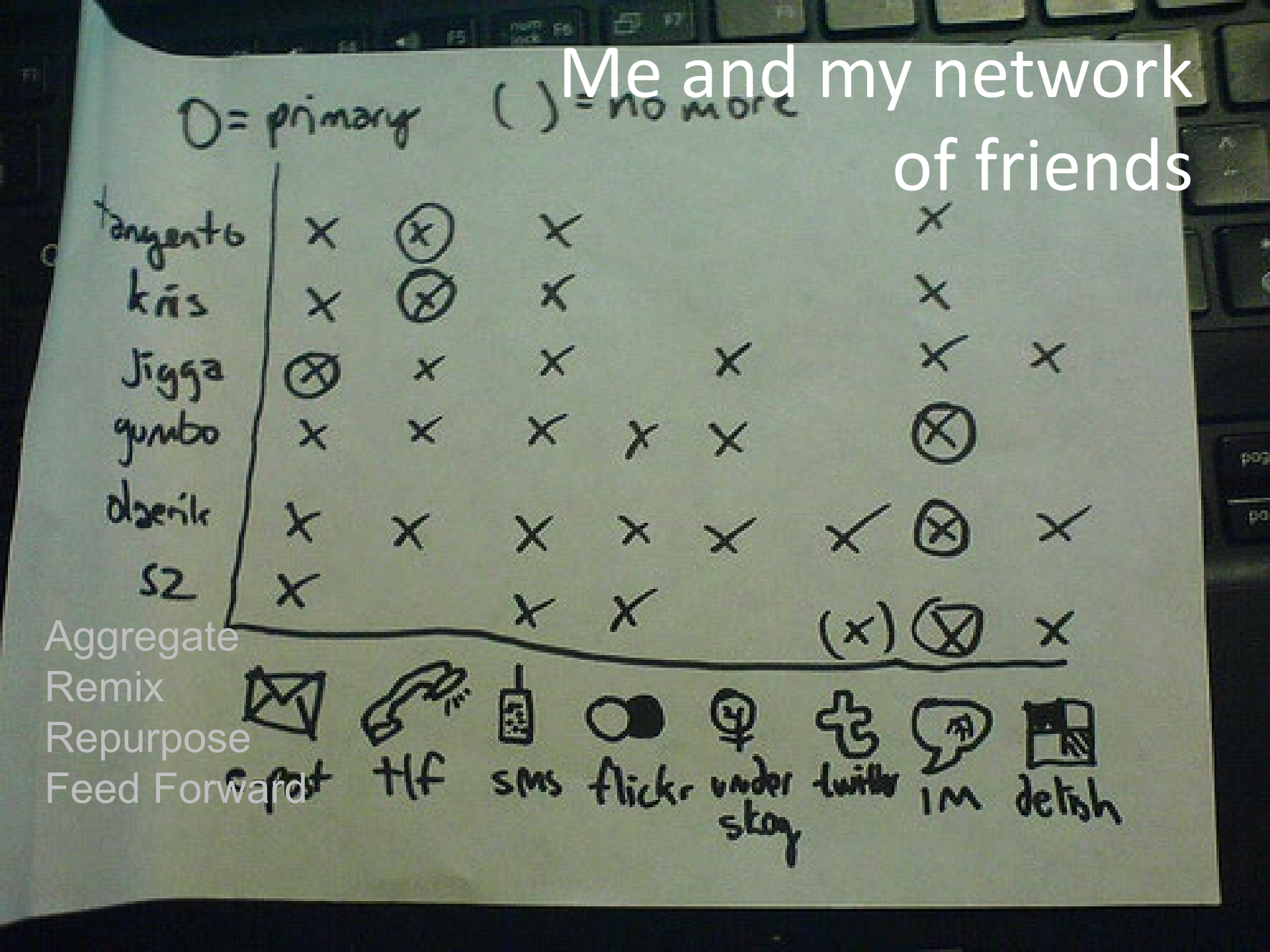
http://en.wikipedia.org/wiki/Cynefin

Understanding Interdependence

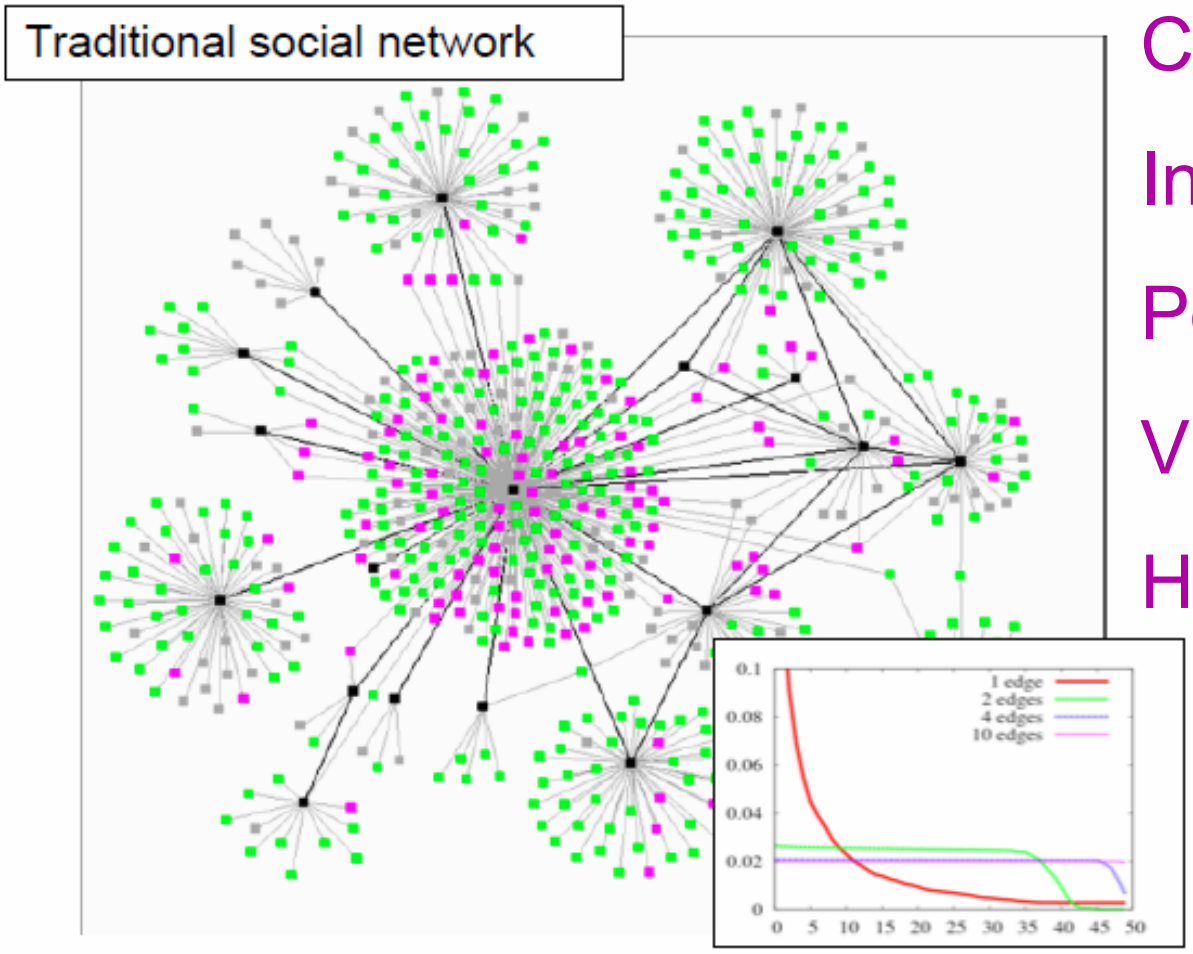
= no simple principles

= no simple cause & effect

Me and my network of friends



Network Structures - Tree



Central

Influence

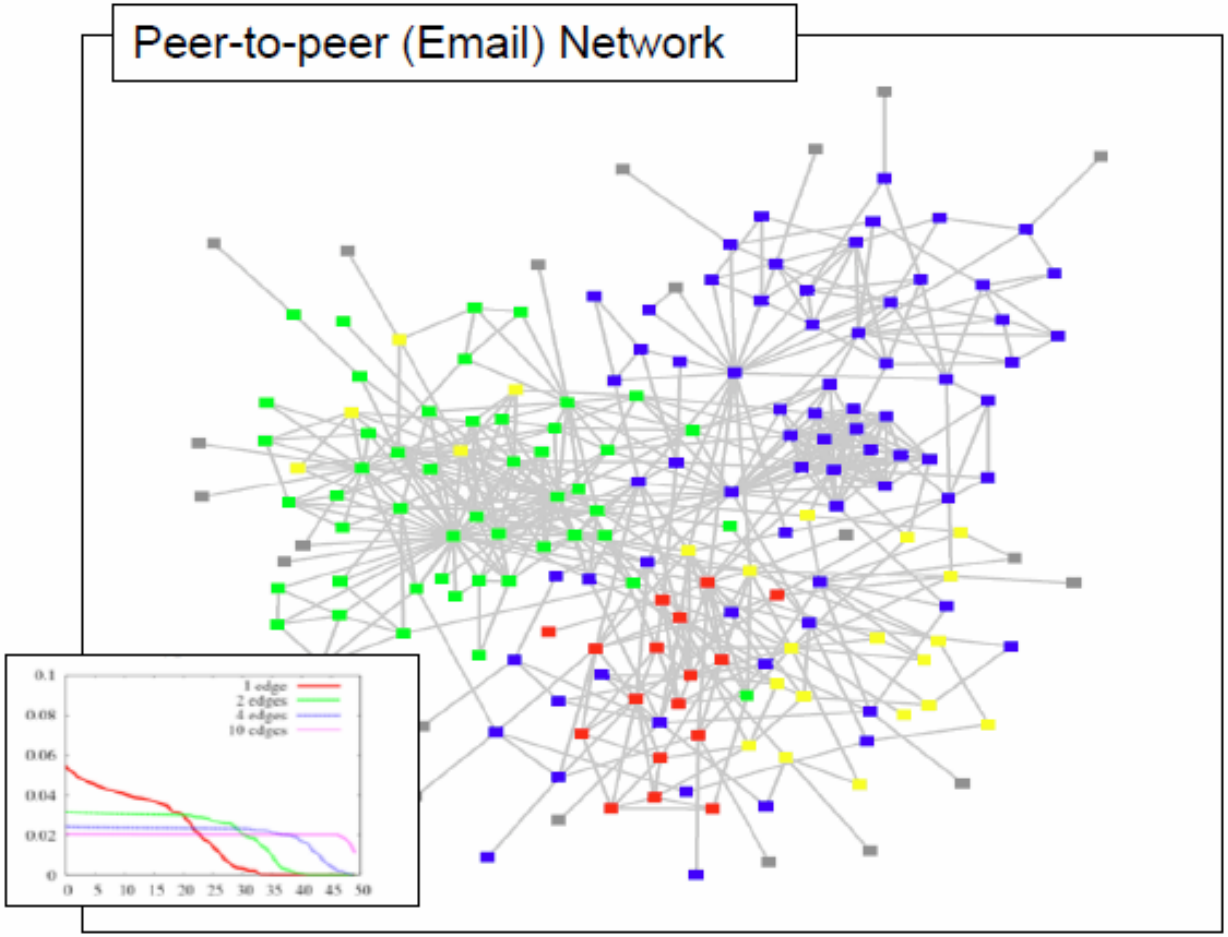
Power Law

Viral

Hierarchy

http://middleburydemocrats.wordpress.com/2008/09/28/college-democrats-getting-obama-to-go-viral-no-really/

Network Structures - Mesh



Distributed

Discussion

Balanced

Reflective

Democracy

http://www.daniel-lemire.com/fr/abstracts/DIVERSITY2008.html
http://www.mailchimp.com/blog/using-email-to-uncover-hidden-social-networks/

Individualism vs Mutuality

Independent variables vs dependent variables

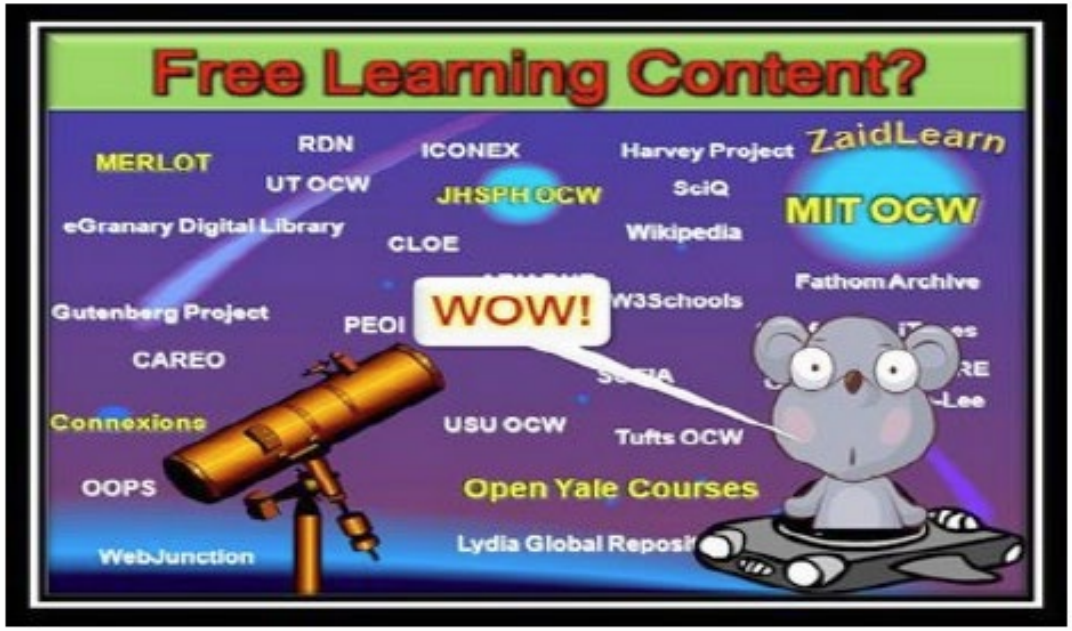
eg. Rational decision - vs role model

The myth of solitary autonomy

When we ourselves become the story

The Sharing Thesis

- Not just competition - cooperation
- Open Educational Resources (OERs)
- The only sustainable model



http://zaidlearn.blogspot.com/2008/06/university-learning-ocw-oer-free.html

The (Second) Butterfly Thesis

http://www.flickr.com/photos/durhamskywriter/2858347734/

Connectivism

"At its heart, connectivism is the thesis that knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks."

What Connectivism Is

http://halfanhour.blogspot.com/2007/02/what-connectivism-is.html

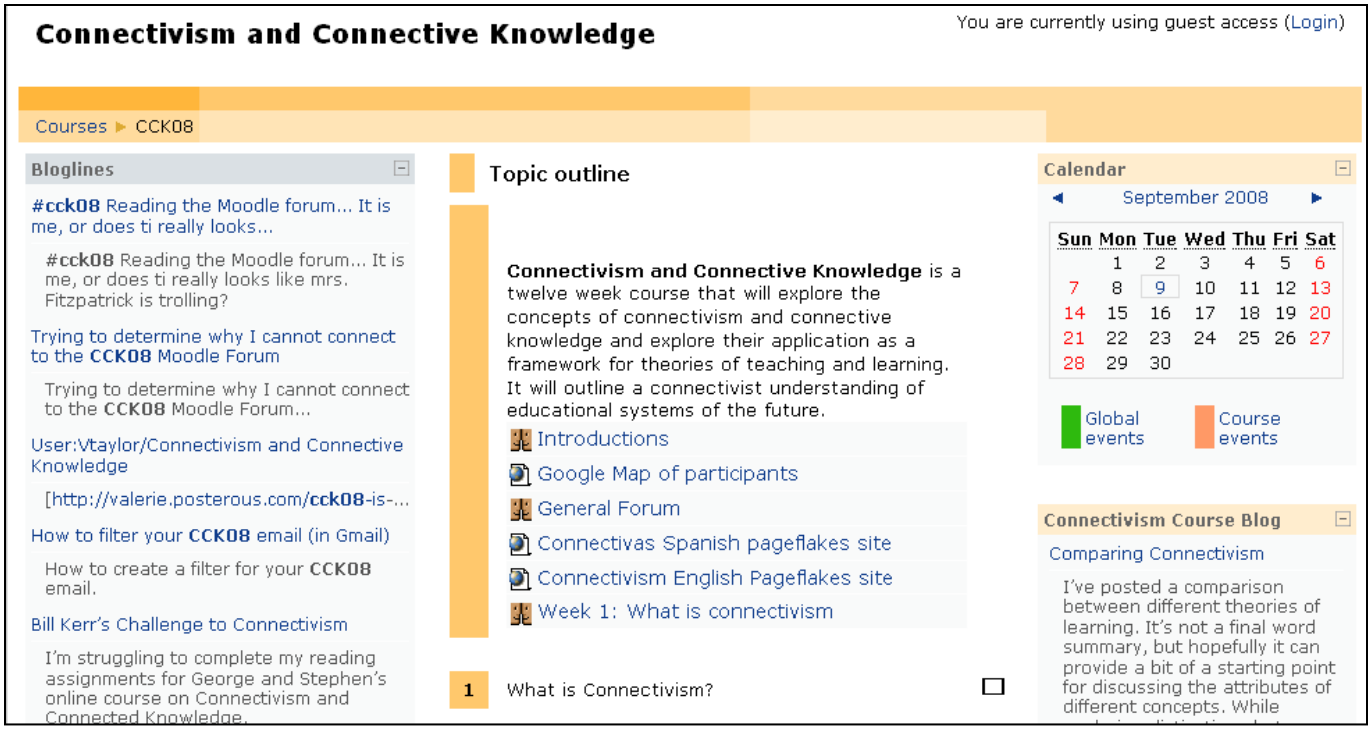
Course Components

- The Wiki…

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

Course Components

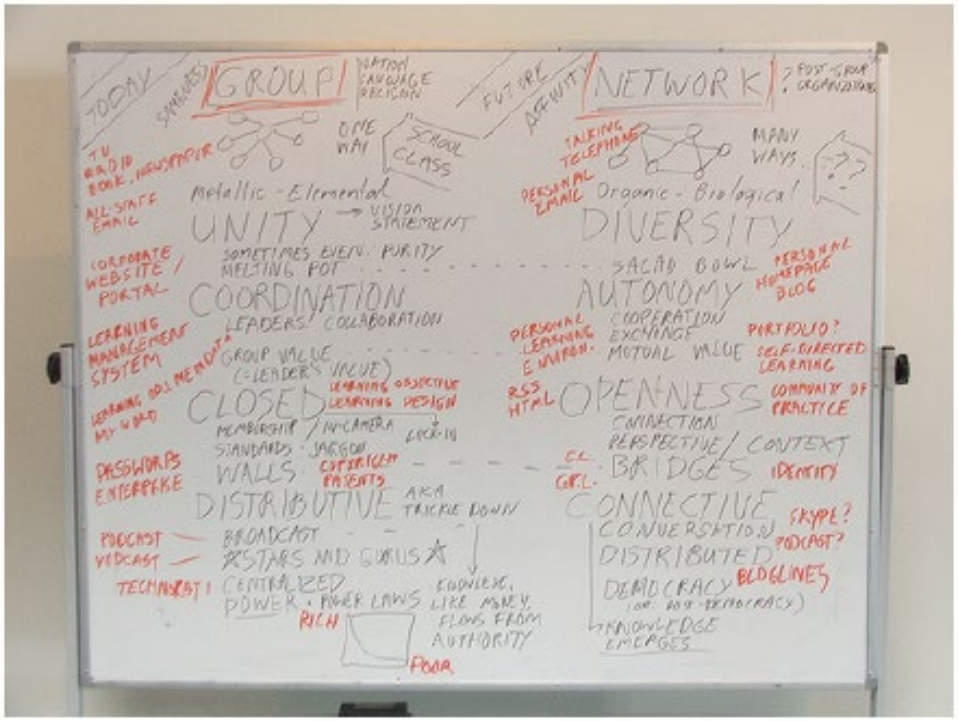
- Course Moodle Forum



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

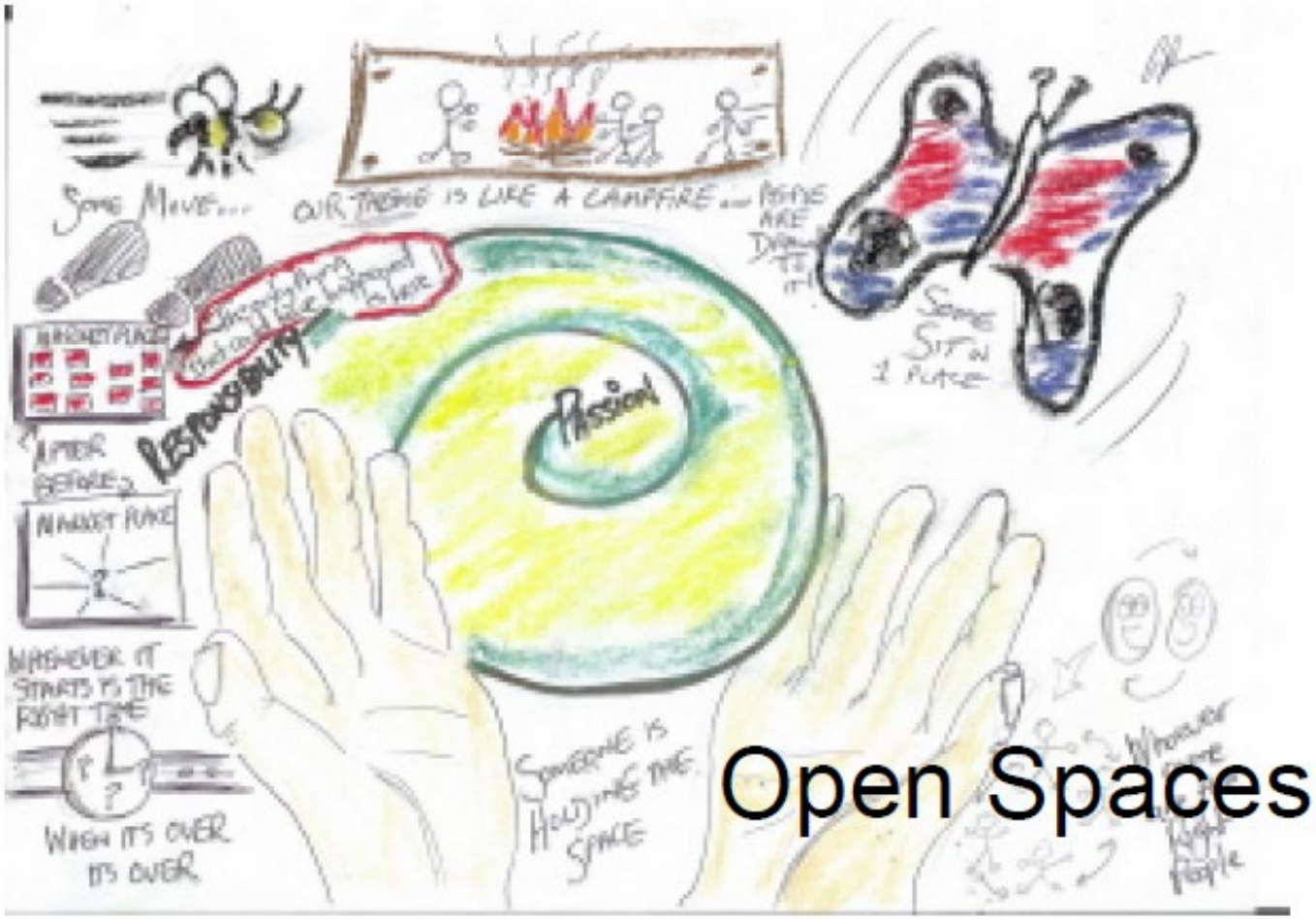
Third Theme

Groups vs networks



http://farm1.static.flickr.com/109/252157734_9e6c29433b.jpg

Nancy White - Me, We, Network



http://www.yesandspace.com.au/wp-content/uploads/2008/04/open-space-metaphor_small.jpg

Objects We Care About

- Nancy White - networks, not just about connecting the people, but the objects they care about

The object system, revisited

I want a guarantee of immunity before I tell any smashed flower pot story.
ICANHASCHEEZBURGER.COM

Repositories and Syndication

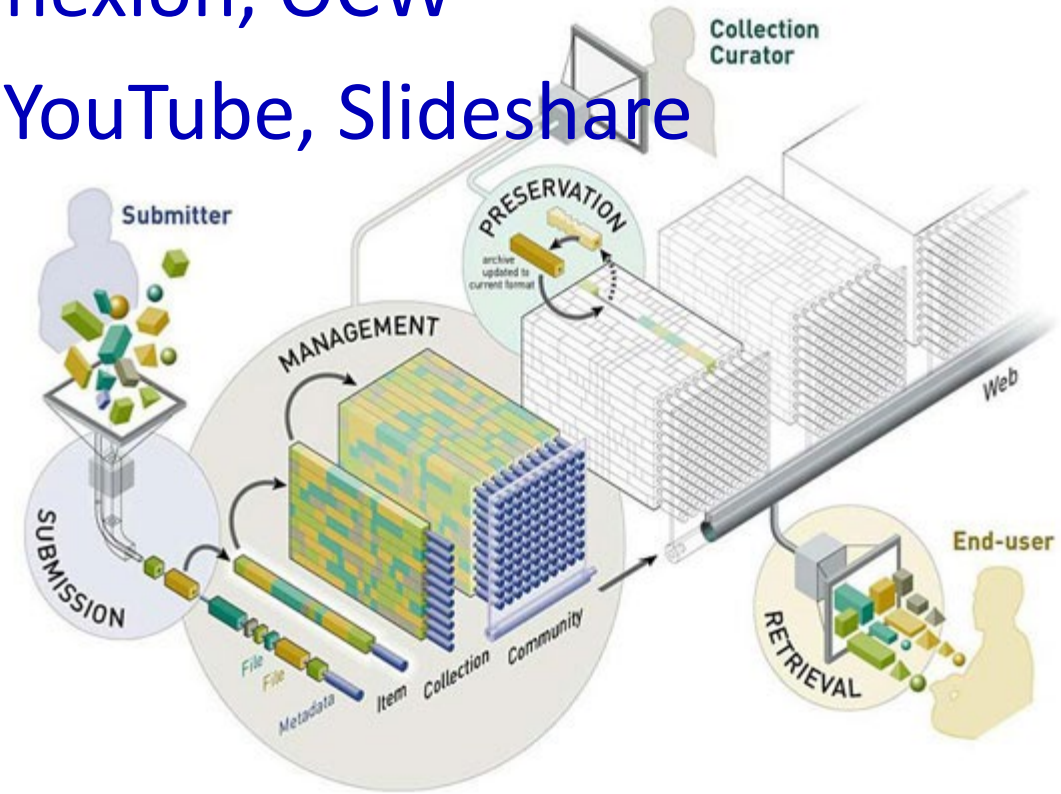
- Academic - OAI-PMH, Dspace, Fedora, Eprints, SWORD, Connexion, OCW
- Web - Flickr, YouTube, Slideshare

RSS

OAI

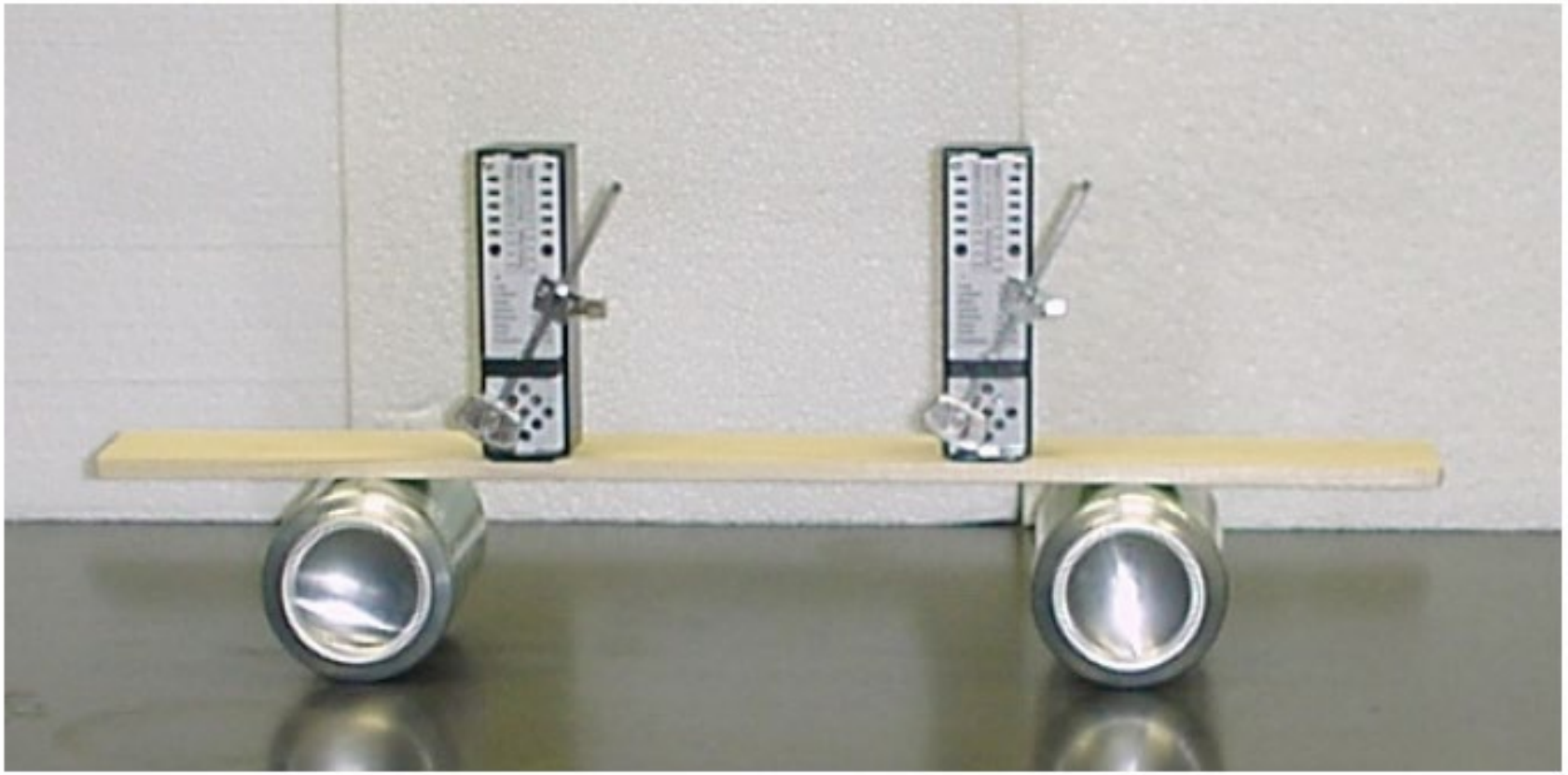
DC

Atom



http://www.ariadne.ac.uk/issue55/vandeventer-pienaar/

Self-organization - metronomes



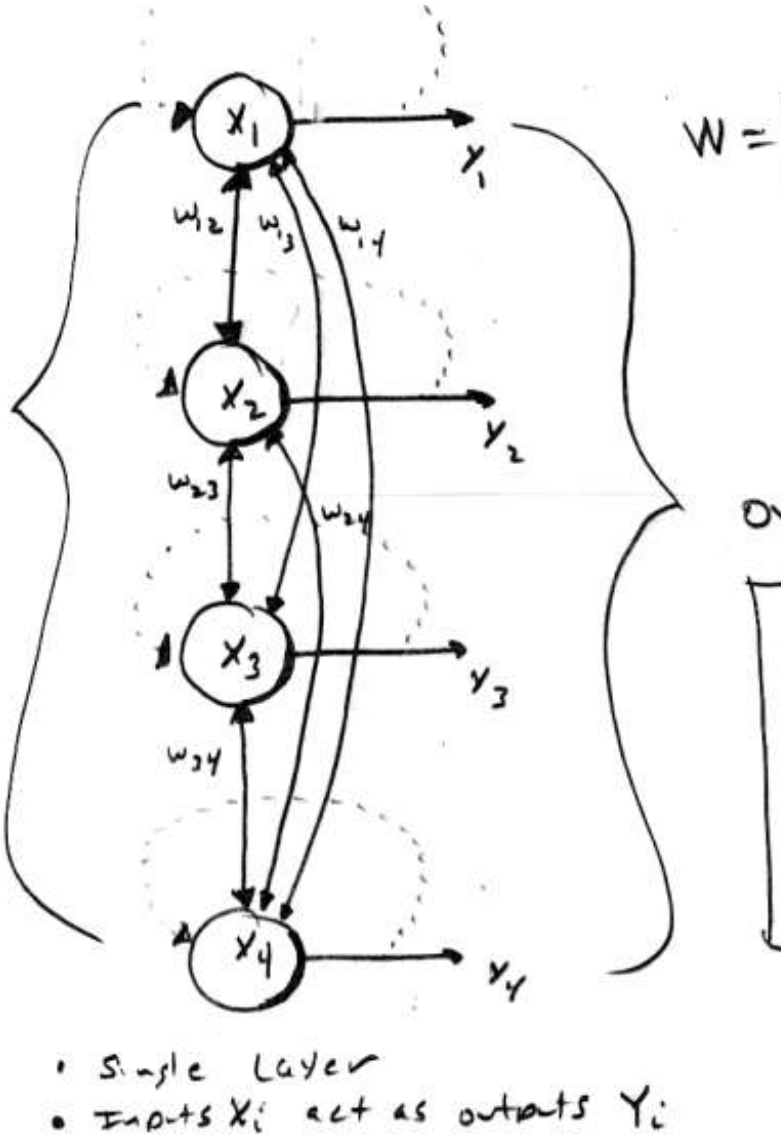
http://salt.uaa.alaska.edu/dept/metro.html

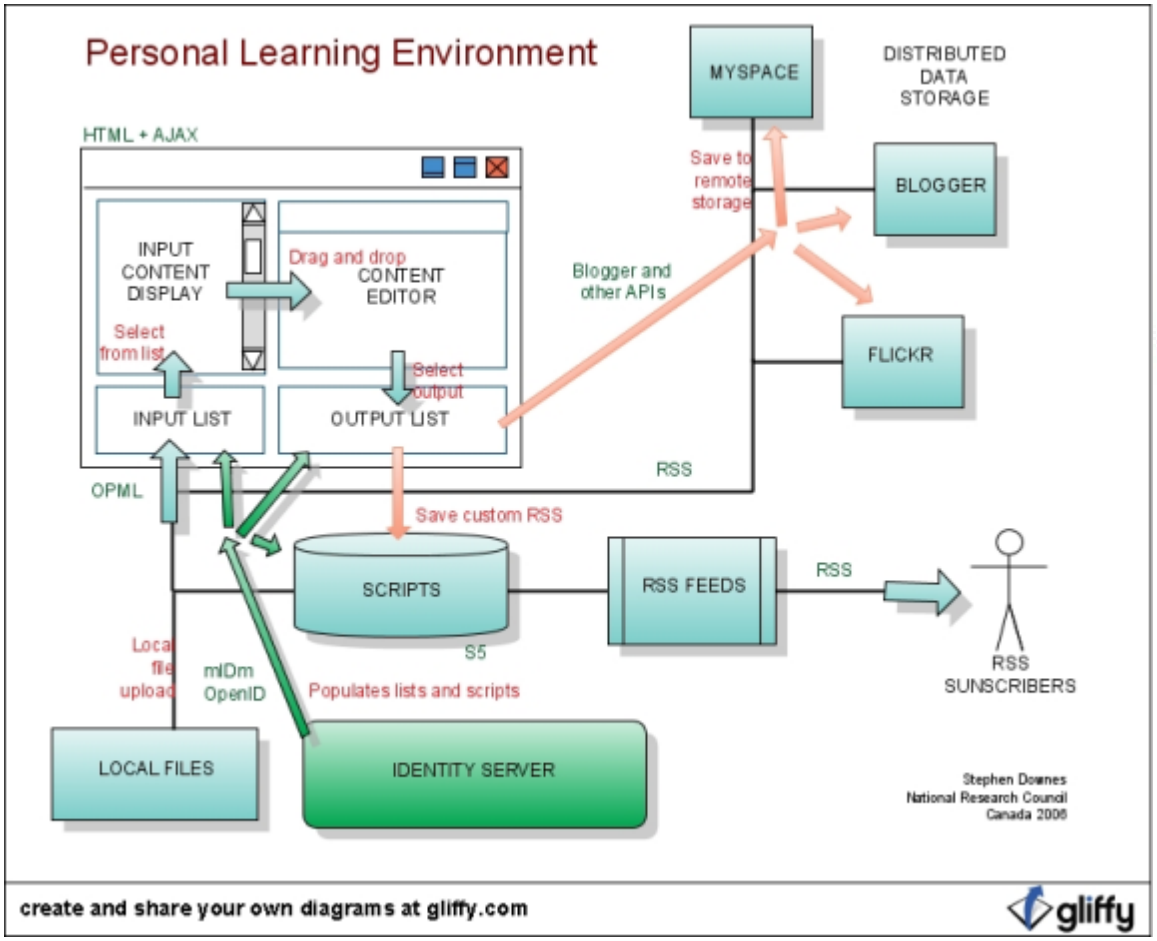
http://www.youtube.com/watch?v=W1TMZASCR-I

Self Organization

Network Learning

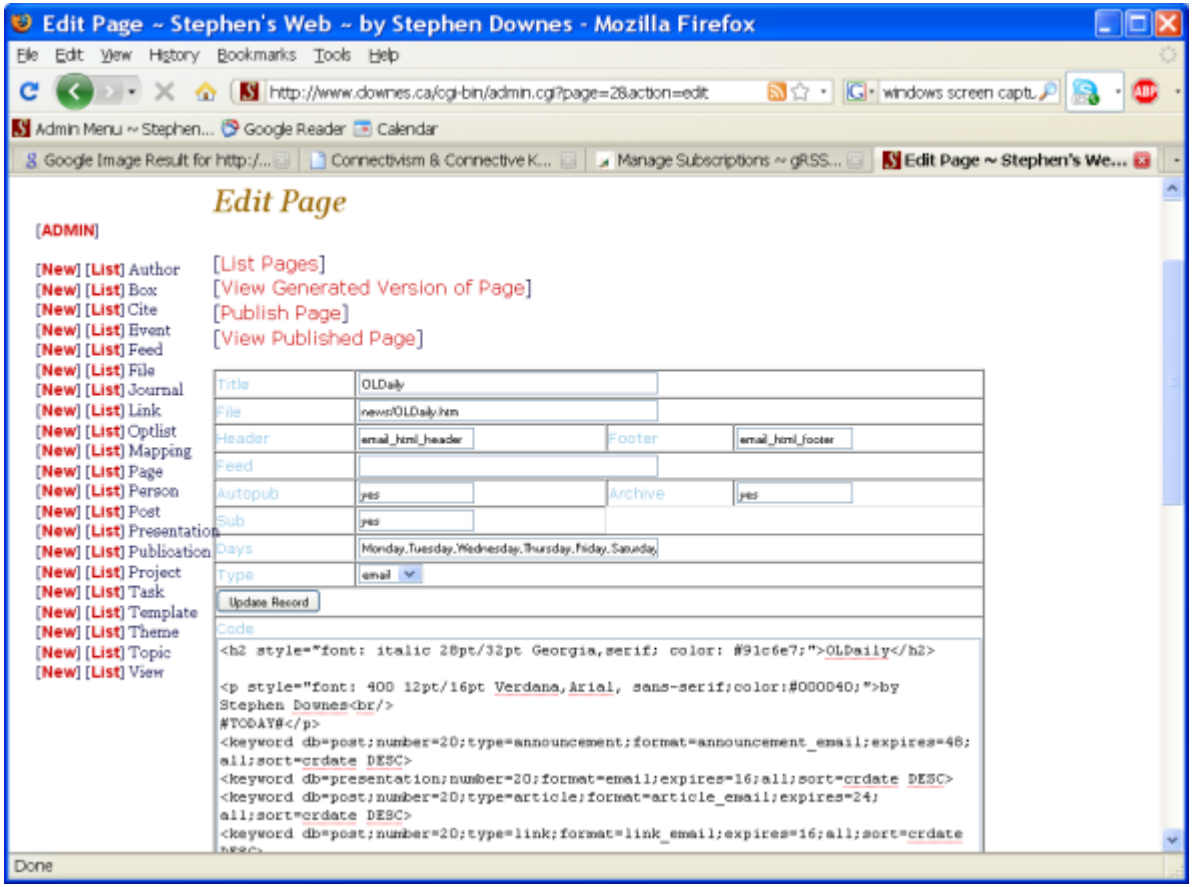
- Hebbian associationism
  - based on concurrency
- Back propagation
  - based on desired outcome
- Boltzman
  - based on ‘settling’, annealing



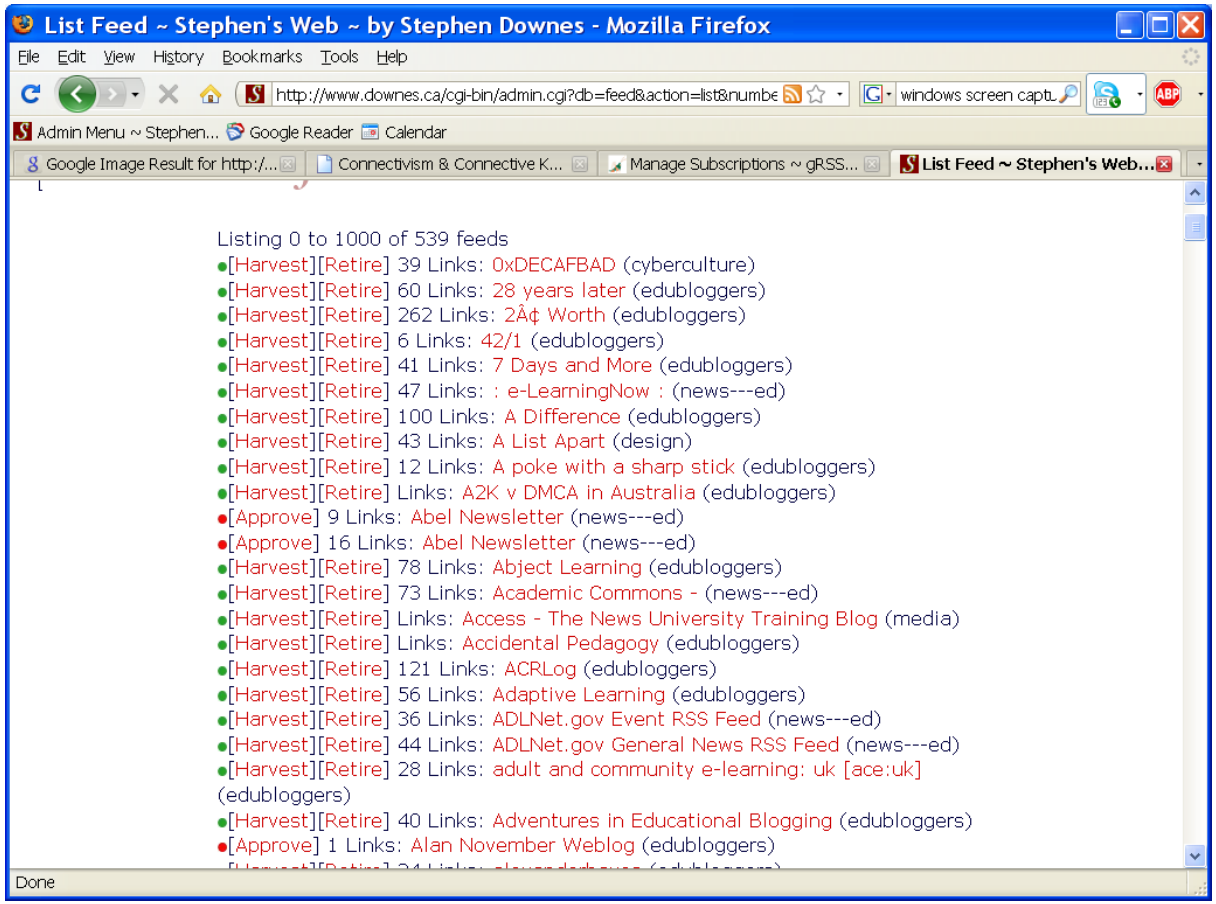


The application provides mechanisms to input, process, and distribute content.

Page Creation

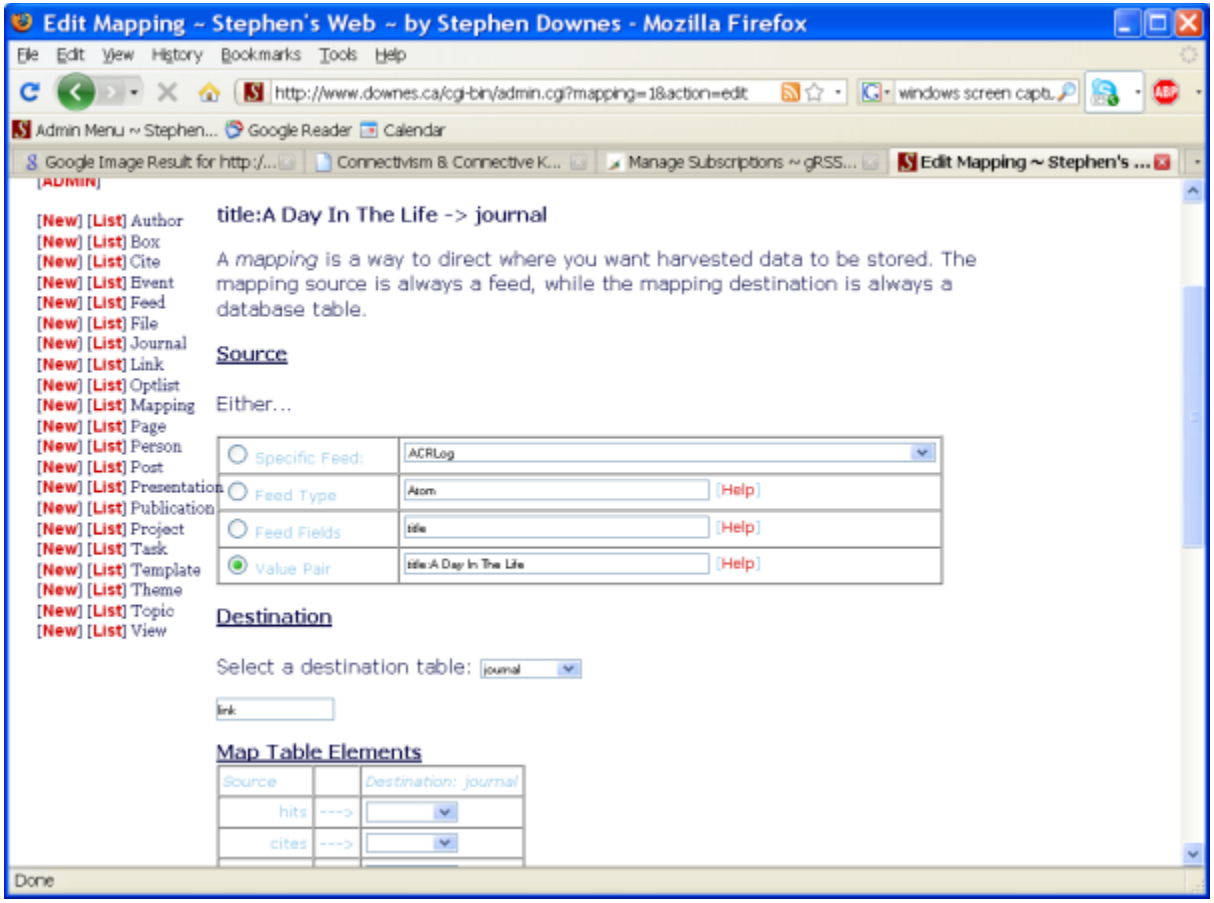


Pages are created automatically from a database of content types



Feed Management

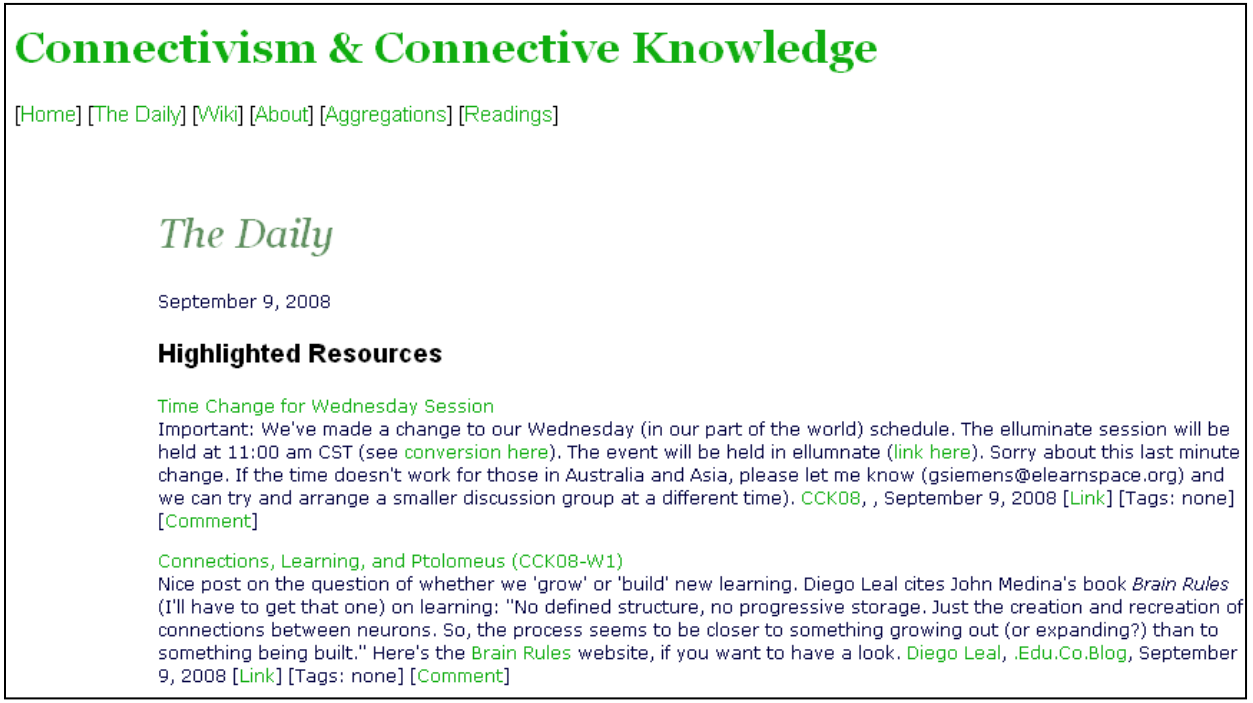
Content input comes from RSS feeds harvested by gRSShopper



Incoming content can be mapped to any of a variety of data types

Course Components

- The Daily



Connectivism & Connective Knowledge

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

The Daily

September 9, 2008

Highlighted Resources

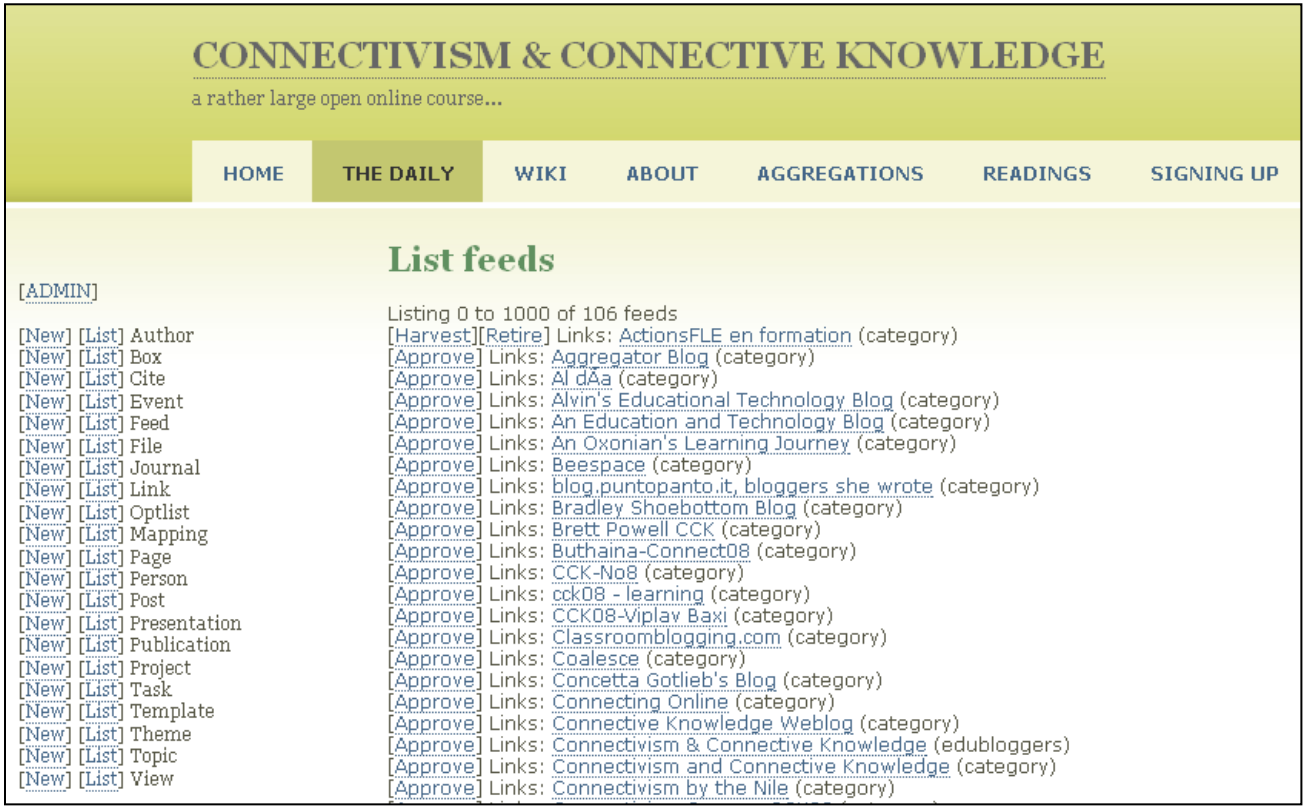
Time Change for Wednesday Session
Important: We've made a change to our Wednesday (in our part of the world) schedule. The elluminate session will be held at 11:00 am CST (see conversion here). The event will be held in ellumnate (link here). Sorry about this last minute change. If the time doesn't work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

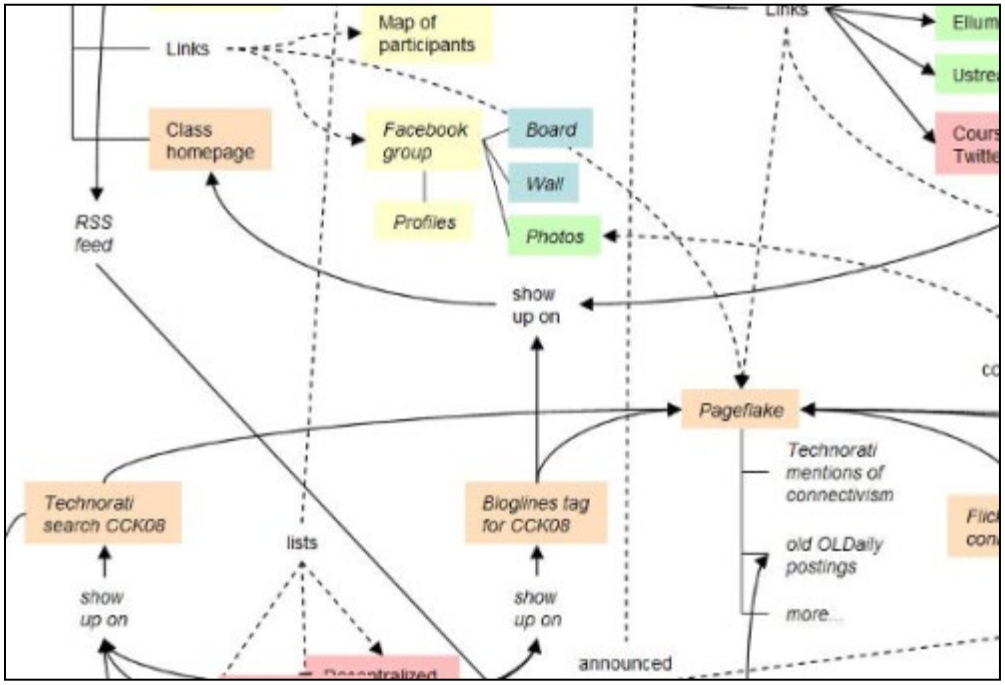
Course Components

- Feed Harvesting



The Students

- The Course Map…



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

The Internet of 2007

Social Networks

blogs and blogging

wikis and collaborative writing

tagging and Digg and…

Web 2.0

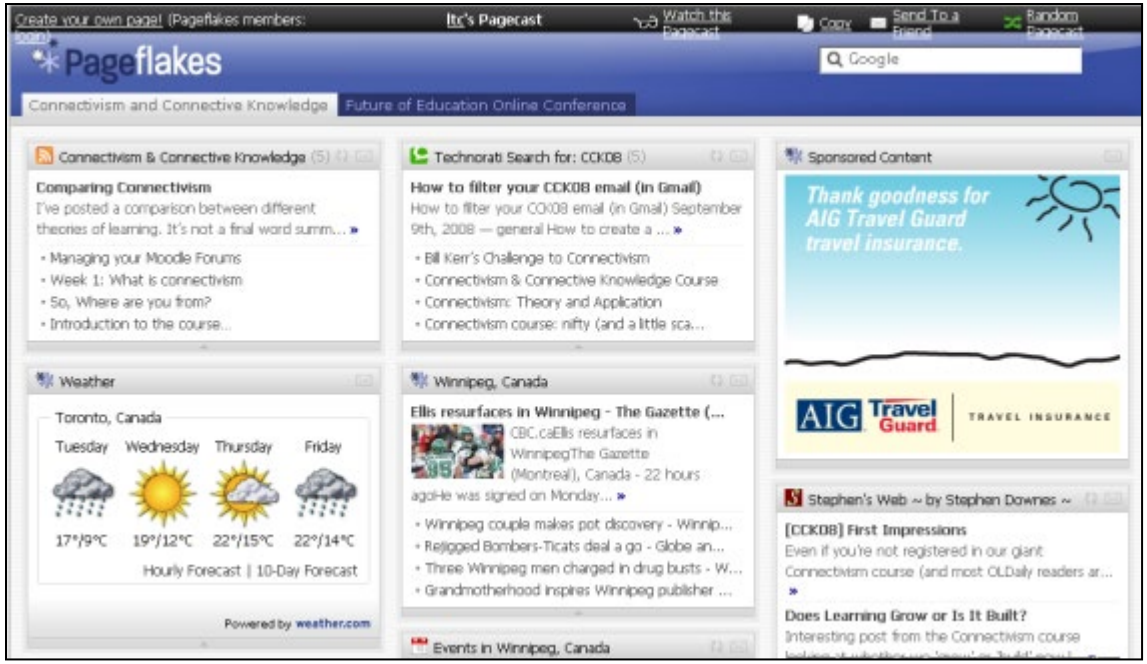
Stallman

The Internet of 2009

Beyond Web 2.0

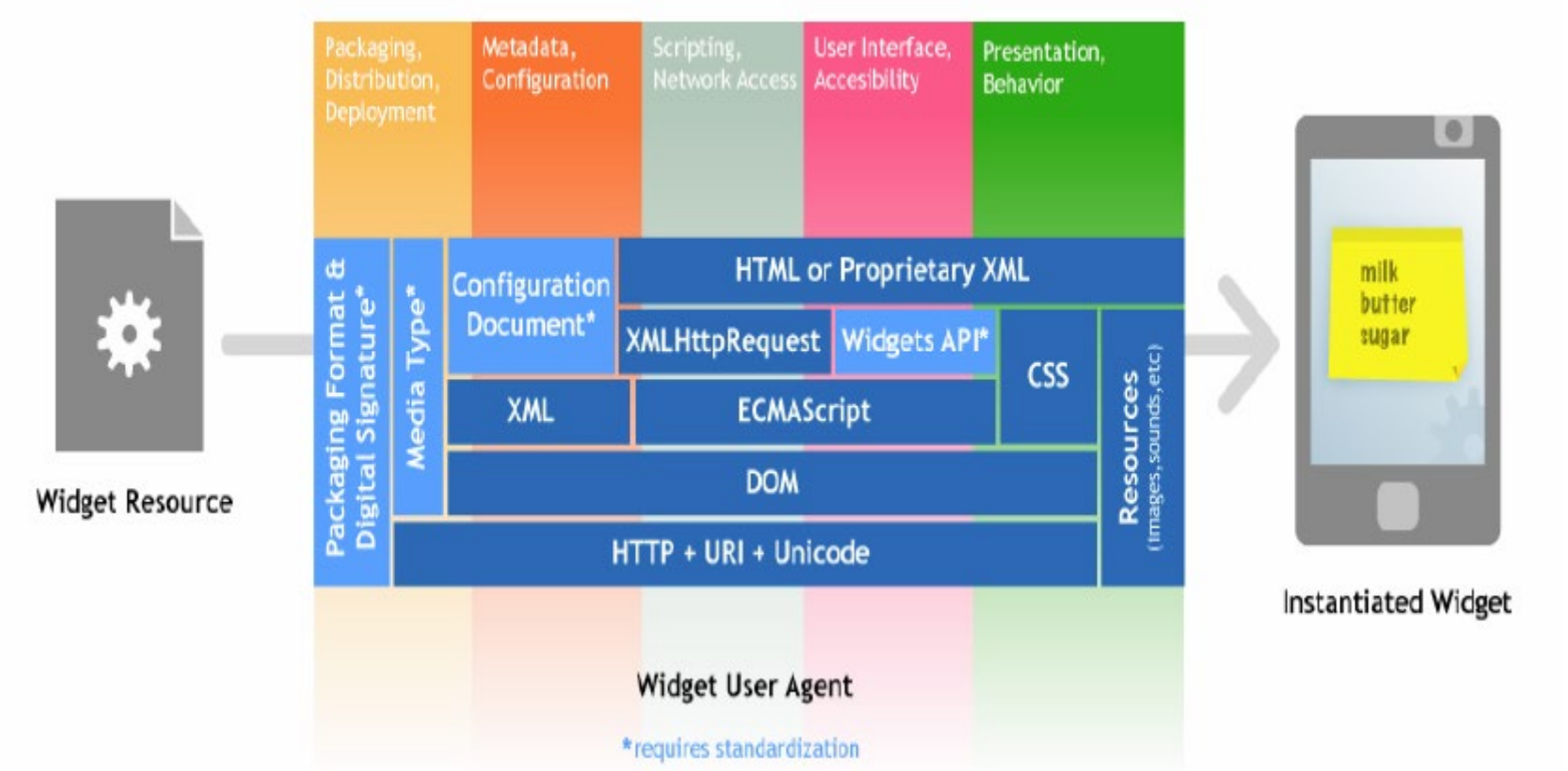
Creating Course Components

- Pageflakes Site



http://www.pageflakes.com/ltc

Widgets and Gadgets



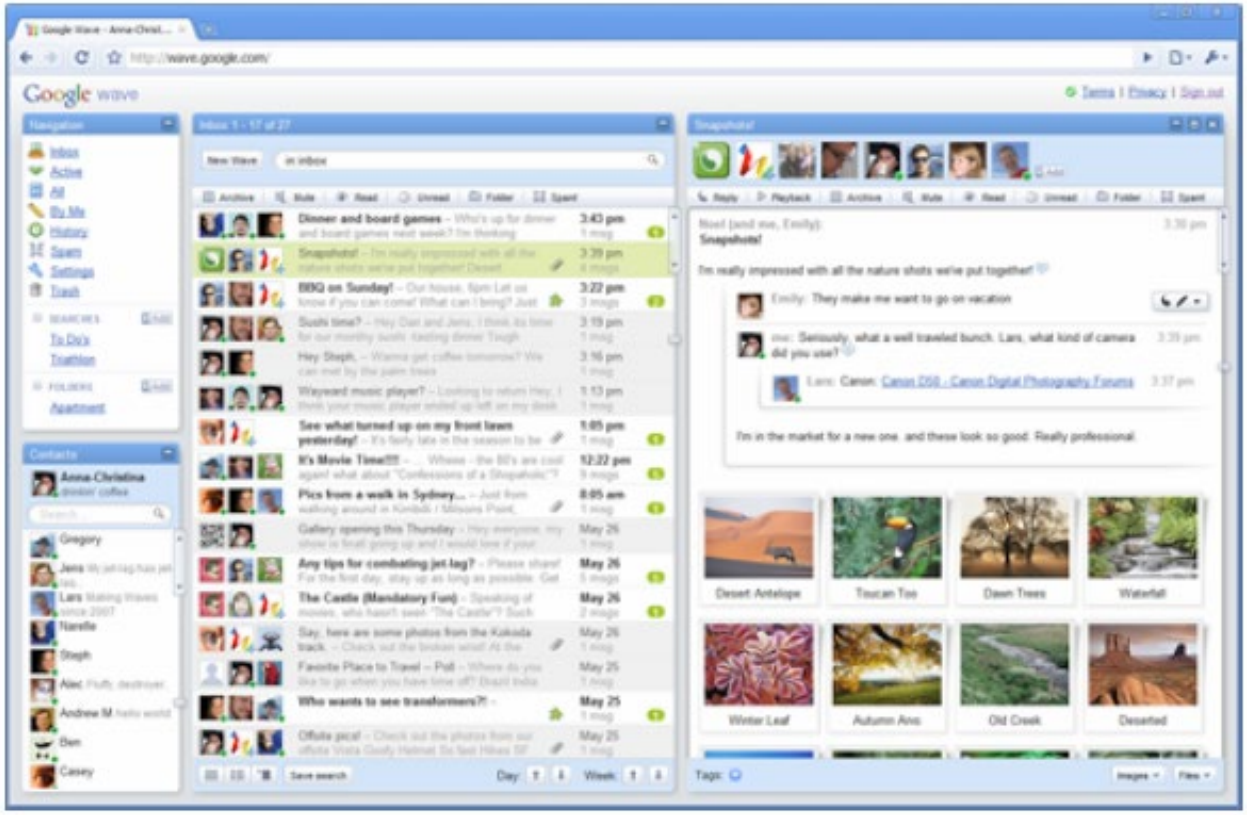
http://www.w3.org/TR/widgets-land/

Widget Landscape

Market-Leading Widget User Agents			
Widget User Agent	**Vendor**	**Version**	**Platform**
Konfabulator	Yahoo!	4.5	Windows XP, Windows Vista, MacOS
Windows Sidebar	Microsoft	1.0	Windows Vista
Google Desktop Gadgets	Google	1.x	Windows XP, Windows Vista
Opera Widgets	Opera	9.5 Beta	Mac OS 10.5, Windows XP, Windows Vista
Dashboard	Apple	1.1	Mac OS 10.5
Web-Runtime	Nokia	1.0 Beta	S60 3rd Edition, Feature Pack 2 (emulator)
Joost Widgets	Joost	1.0 Beta	Mac OS 10.5, Windows XP, Windows Vista
Widget User Agent	**Vendor**	**Version**	**Platform**

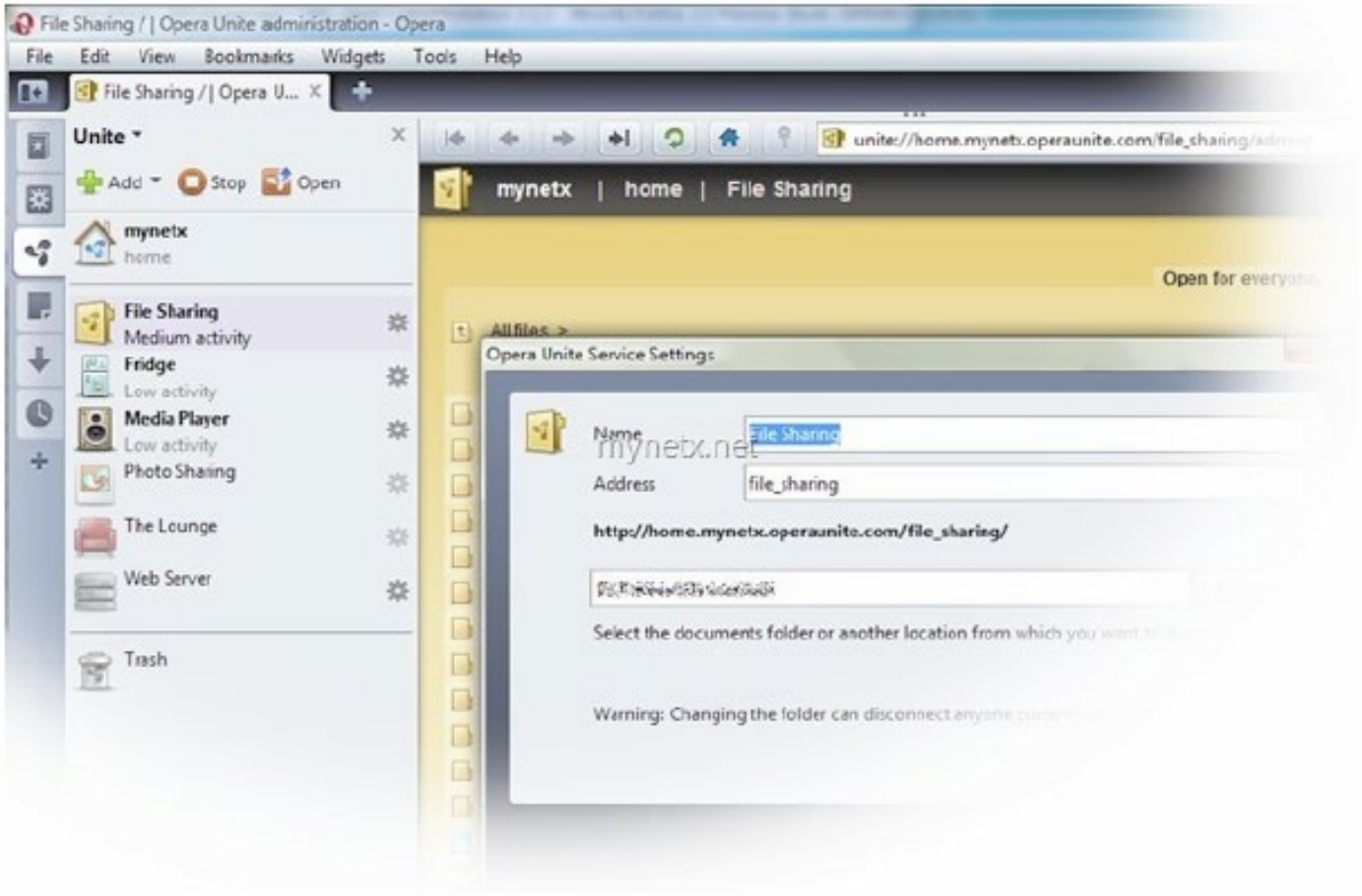
http://www.w3.org/TR/widgets-land/

Google Wave



http://wave.google.com/

Opera Unite

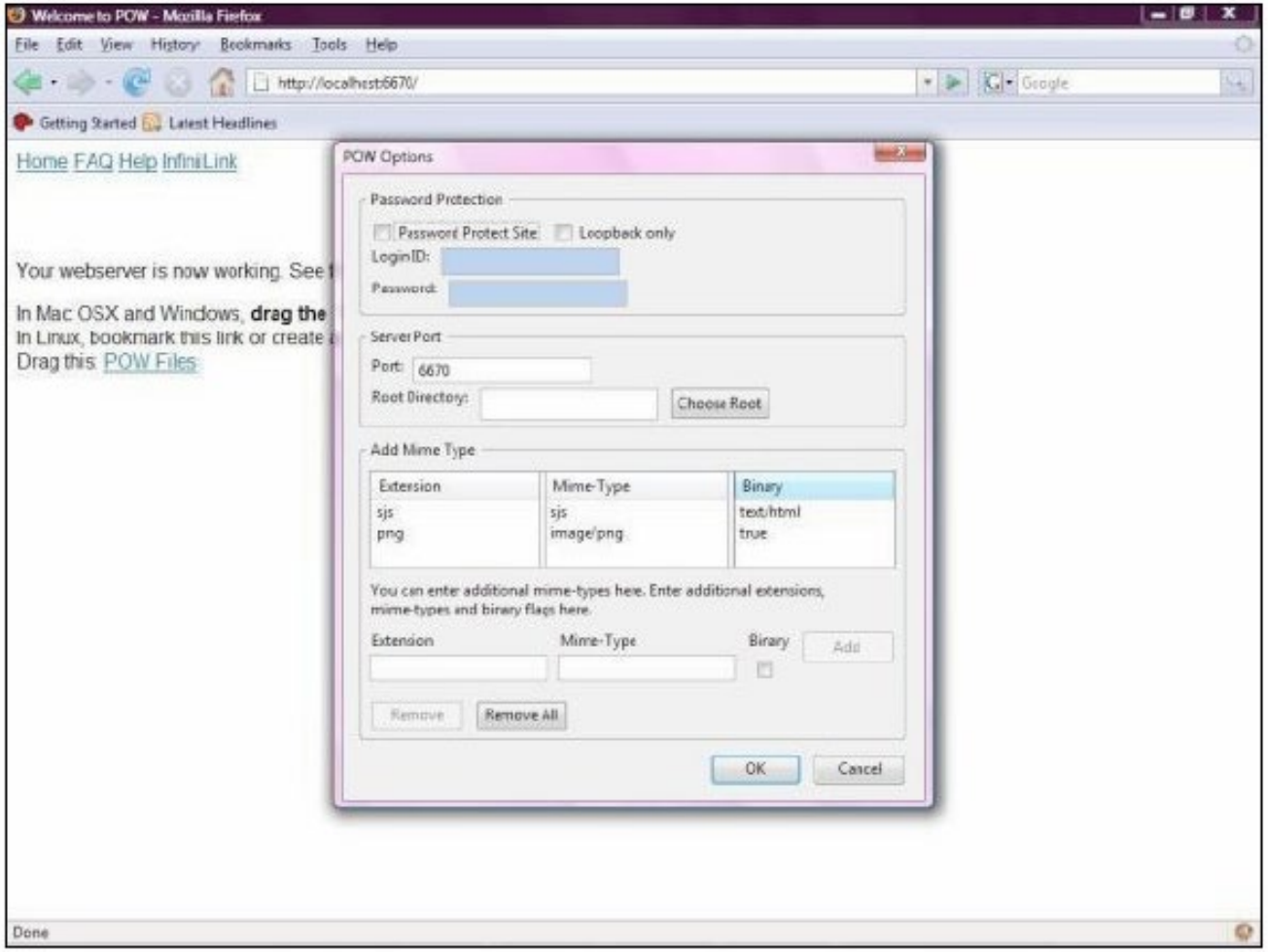


http://blog.mynetx.net/windowslive/opera-unite-how-client-server-future-look-like/

Windows Live Mesh

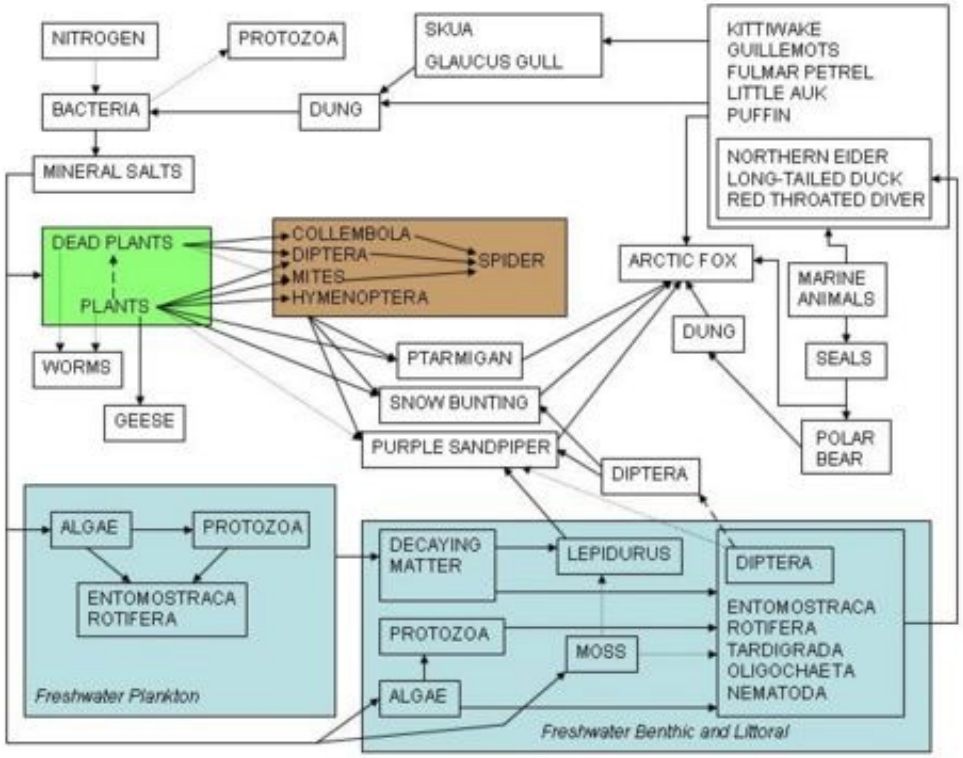
https://www.mesh.com/welcome/default.aspx

Firefox Plain Old Web Server



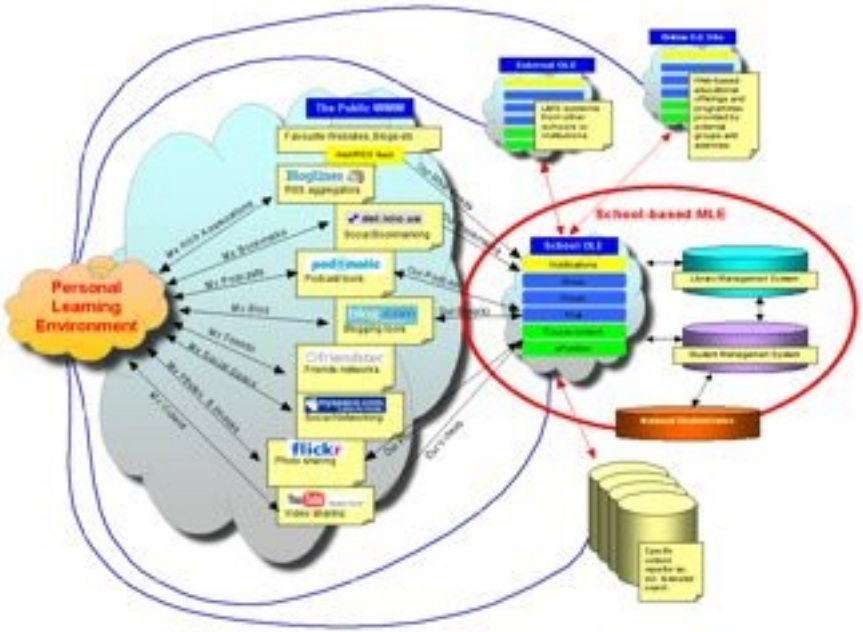
https://addons.mozilla.org/en-US/firefox/addon/3002

- Networks of interactions (aggregate, remix, repurpose, feed forward) – syndication



An ecology…

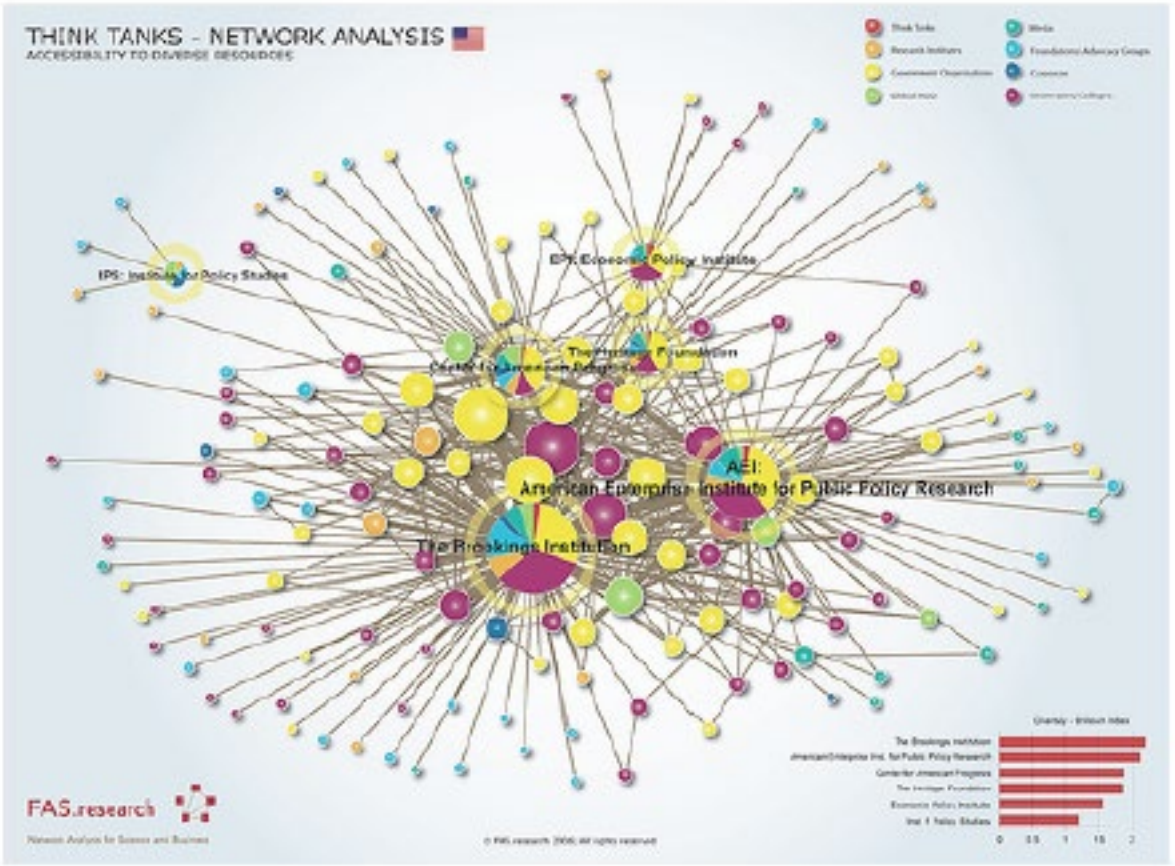
- The *personal* learning centre



Autonomy

http://blog.core-ed.net/derek/2006/11/more_on_mles_and_ples.html

- The Network is Diverse – multiple views, multiple technologies

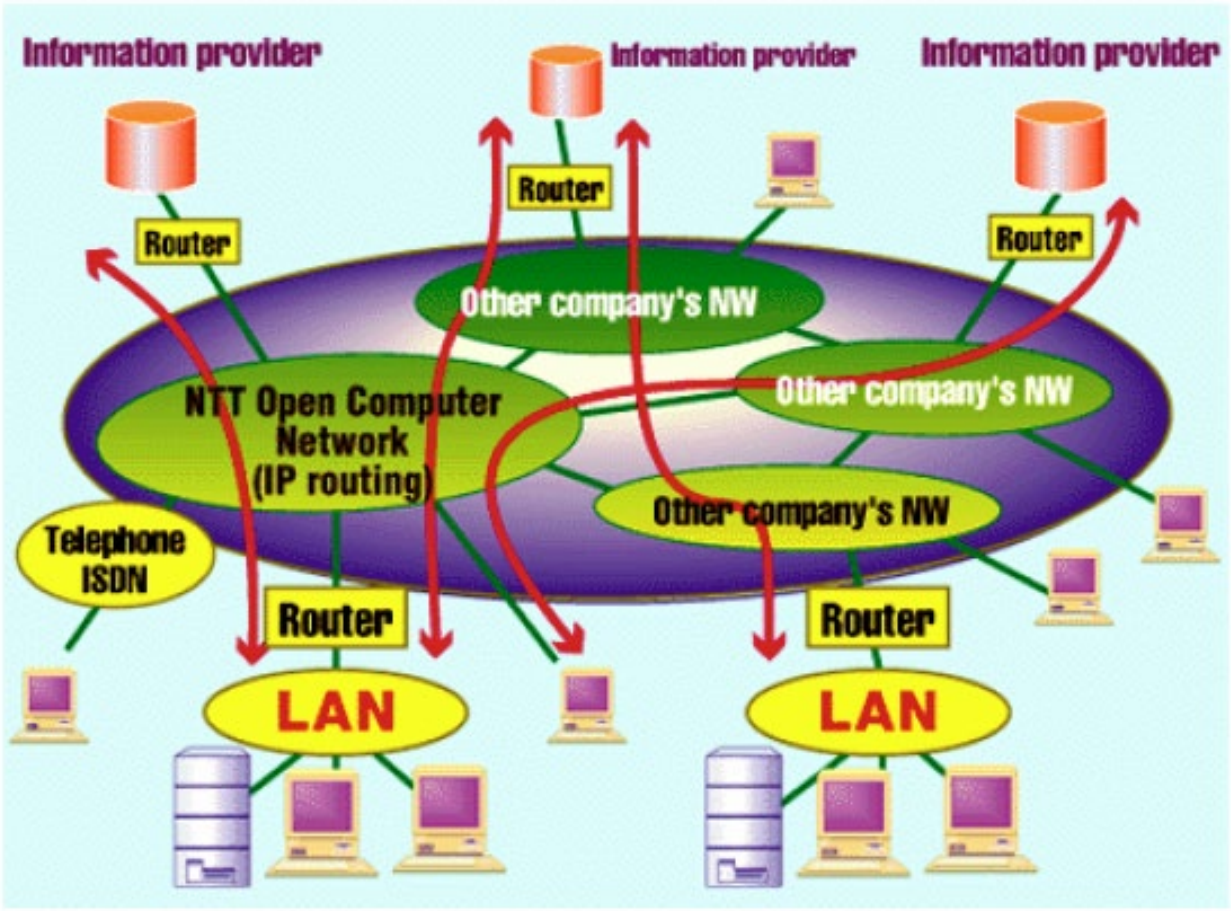


http://flickr.com/photos/11242012@N07/1363575474

- The Network is connected and interactive (*not* 'integrated') – small pieces, loosely joined

http://www.biography.org.uk/real.htm

- The Network is *open*



http://park.org/Japan/NTT/DM/html_f4/F4_10600_e.html

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