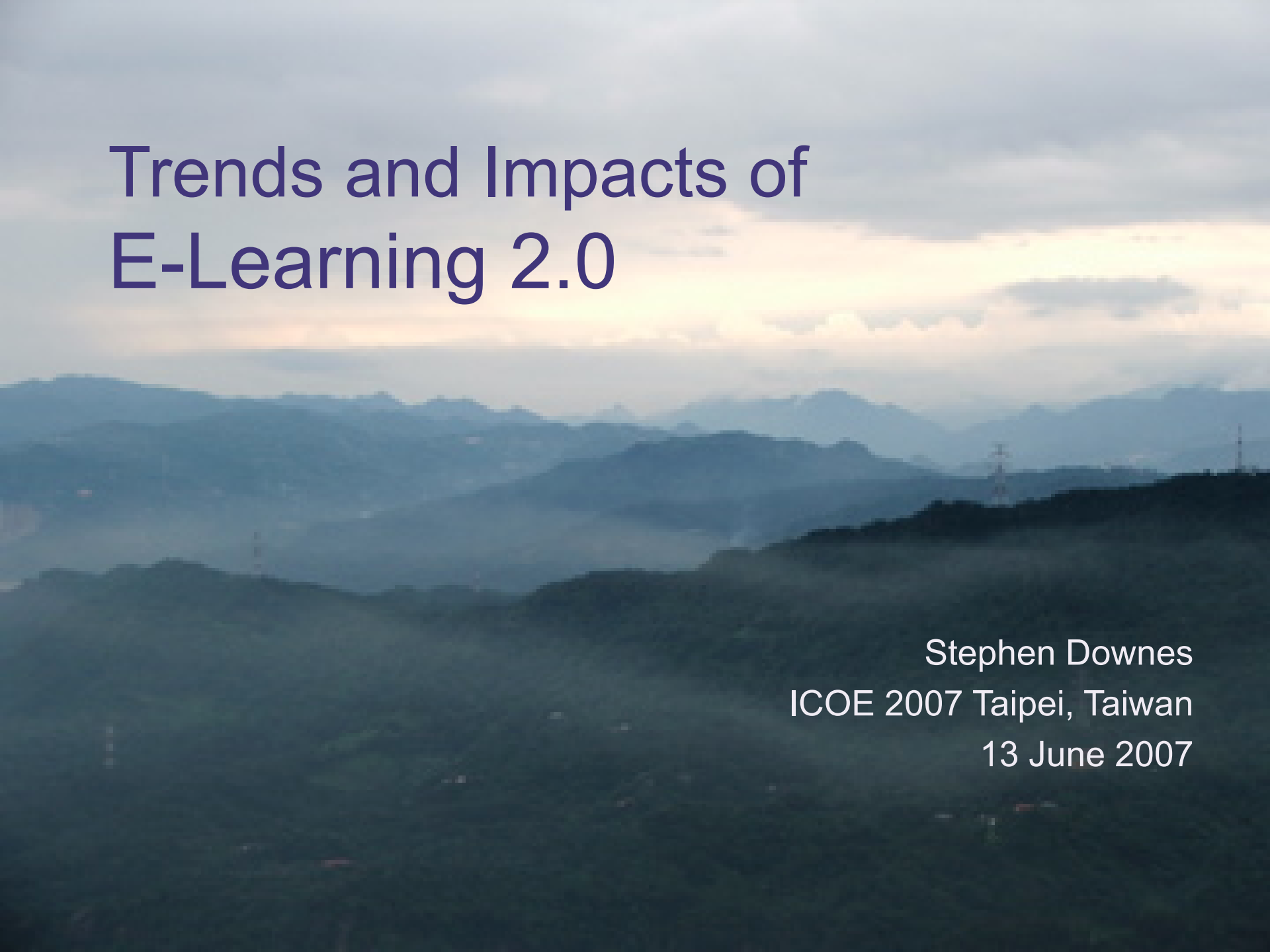


Trends and Impacts of E-Learning 2.0

Stephen Downes

ICOE 2007 Taipei, Taiwan

13 June 2007

Institutions and Individuals

So far, the story of open content has been told by institutions…

But there is another story to be told

Another Timeline…

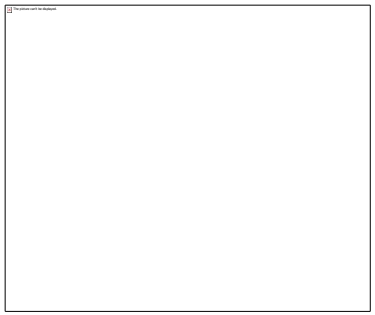
Stephen's Guide to the Logical Fallacies

Muddog Mud

1994 1995 1996

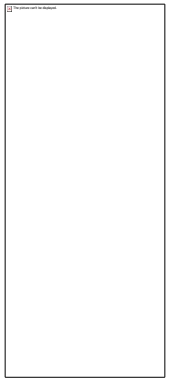
Athabaska BBS

Painted Porch



Maximus

MAUD



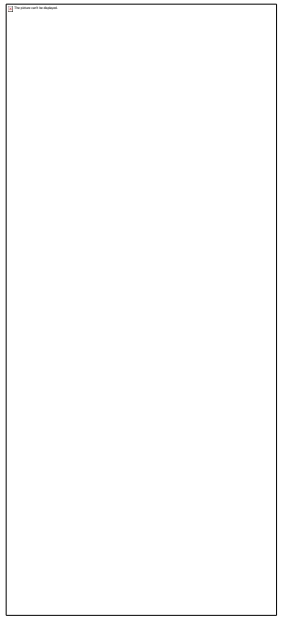
Future of Online Learning

CAE

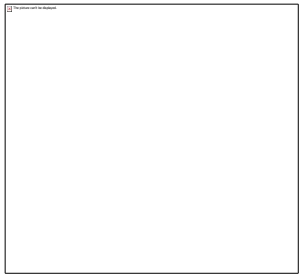
Learning Objects

modules

1997 1998 1999



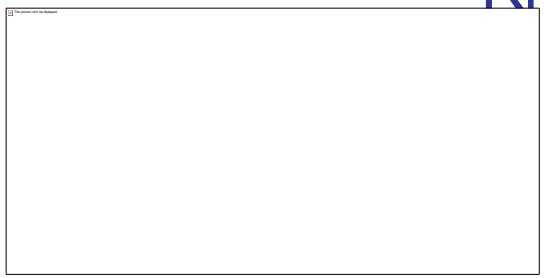
Online Learning Environment

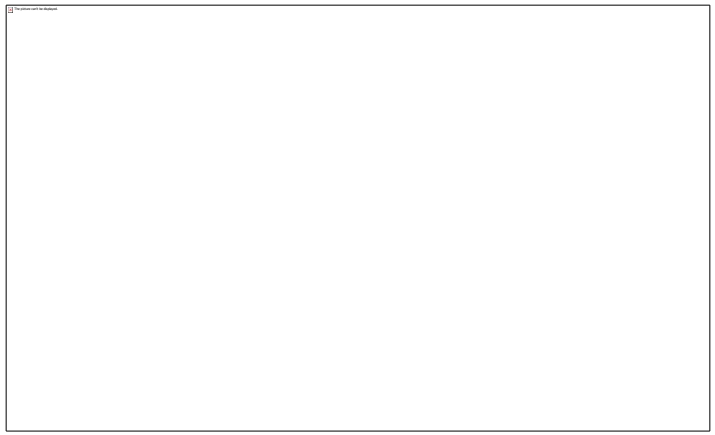


OLe

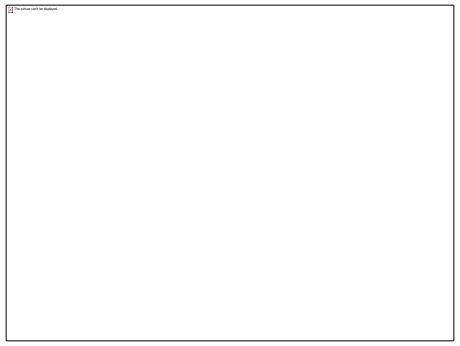
The Brandon Pages

Knowledge
Learning
Community





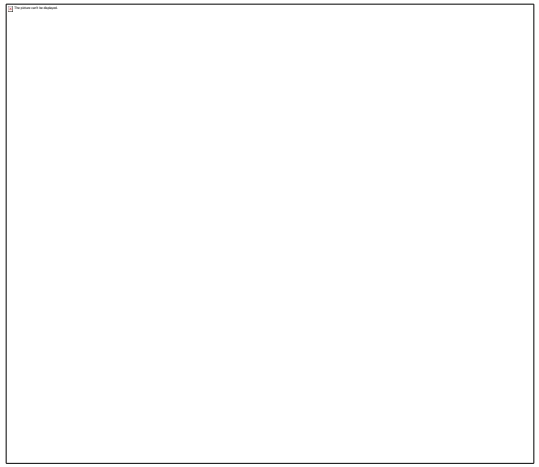
2000 2001 2002



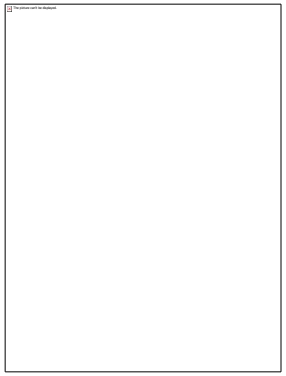
PEGGAsus

OLDaily

MuniMall

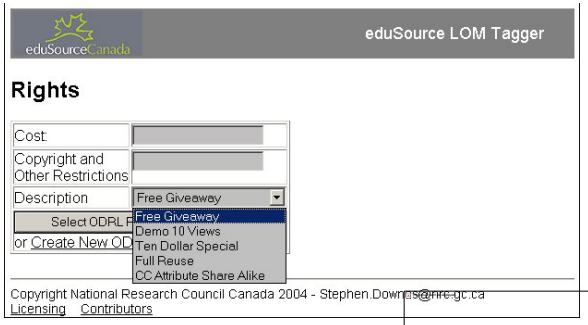


The
Learning
Marketplace

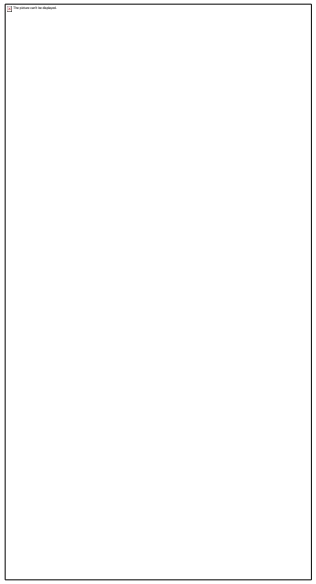


2003 2004 2005

Edu-RSS



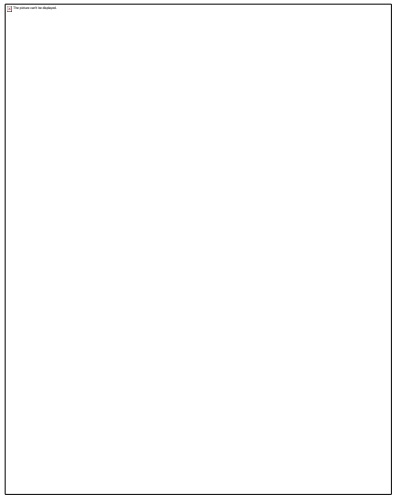
DDRM

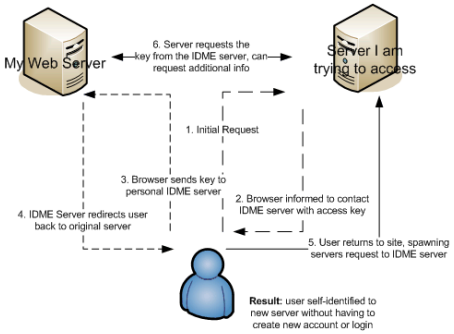


Ed Radio

Podcasting

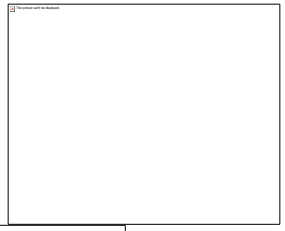
E-Learning 2.0

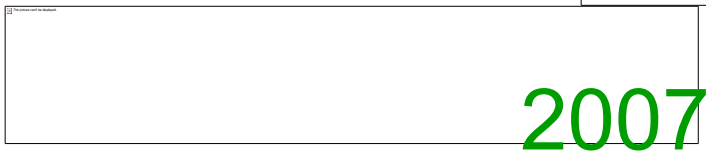




Learning Networks

mIDm

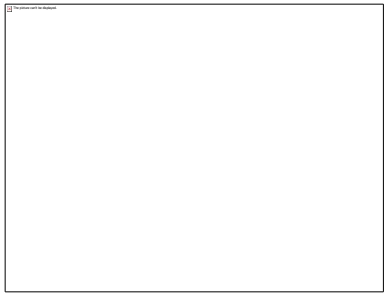


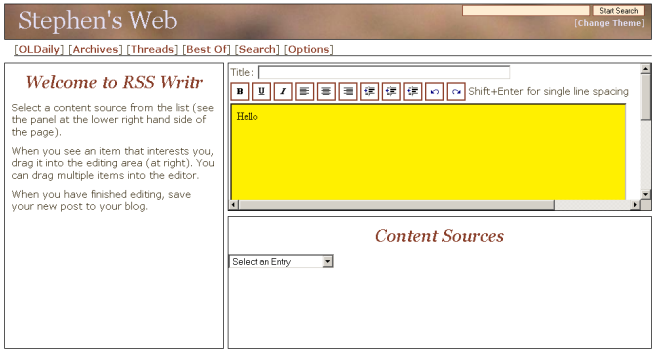


2006

2007

Educational Blogging

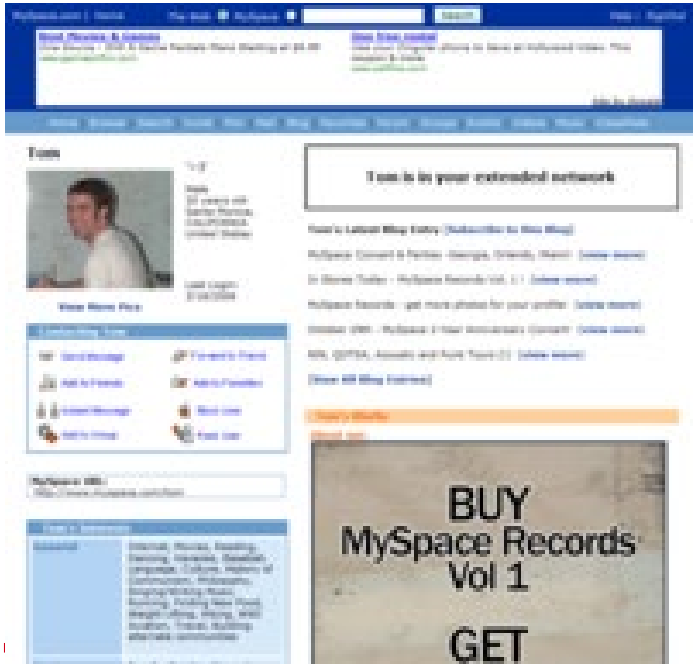




RSS Writr

Web 2.0

The Net Generation creates its own media..



Identity Production in a Networked Culture: Why Youth Heart MySpace ... Danah Boyd http://www.danah.org/papers/AAAS2006.html

"The dynamics of identity production play out visibly on MySpace. Profiles are digital bodies, public displays of identity where people can explore impression management."

Blogs and Wikis

"Never have so many people written so much to be read by so few..."
-- Katie Hafner NY Times.

Blogger - Live Journal - Movable Type - Wordpress
Educational Blogging – article
Educational Weblogs - Edublogs.org

Wikipedia – as compared to Britannica by Nature

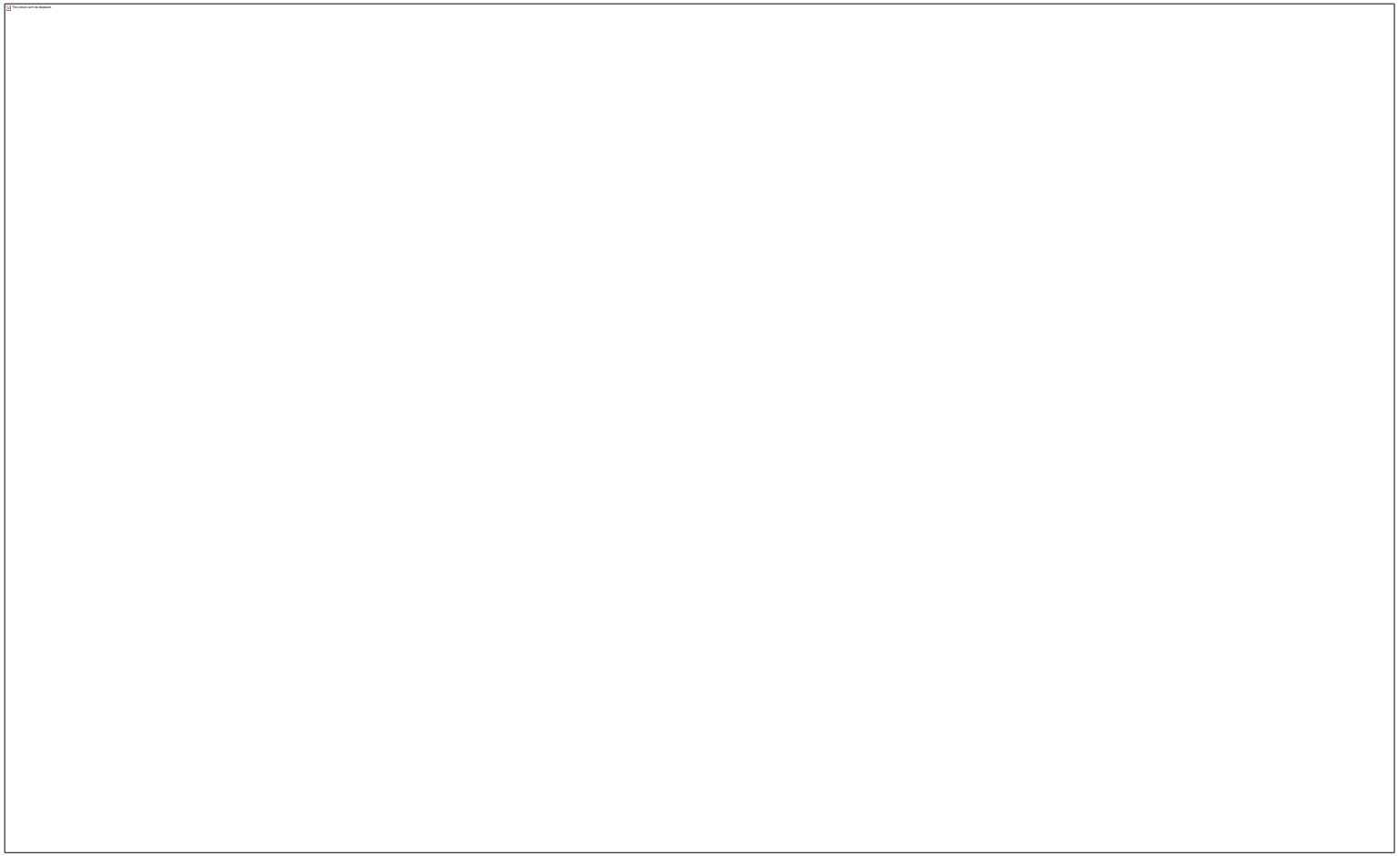
Photos, Podcasting and Vodcasting

Flickr
Podcasting - wikipedia
iPodder - Odeo –
Liberated Syndication

Youtube - video

Podcasting in Learning
Ed Tech Talk - Ed Tech Posse - FLOSSE Posse
Bob Sprankle - Education Podcast Network

The Core Technologies



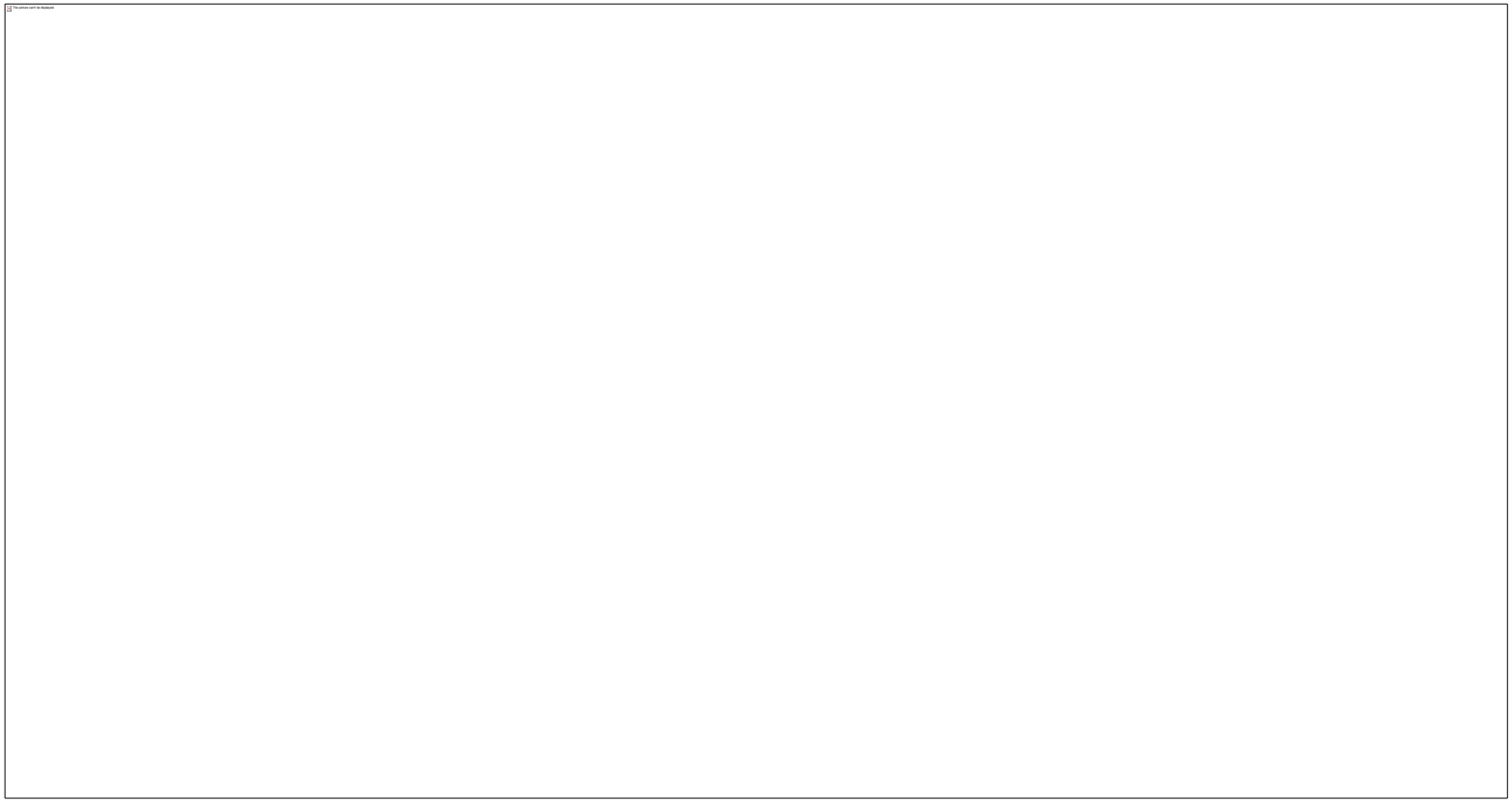
Web 2.0 RoadMap http://www.nri.co.jp/english/news/2006/061110.html

- Social Networking

- Tagging

- Asynchronous Javascript and XML (AJAX)

Jesse James Garrett in February 2005.



https://bpcatalog.dev.java.net/ajax/textfield-jsf/design.html

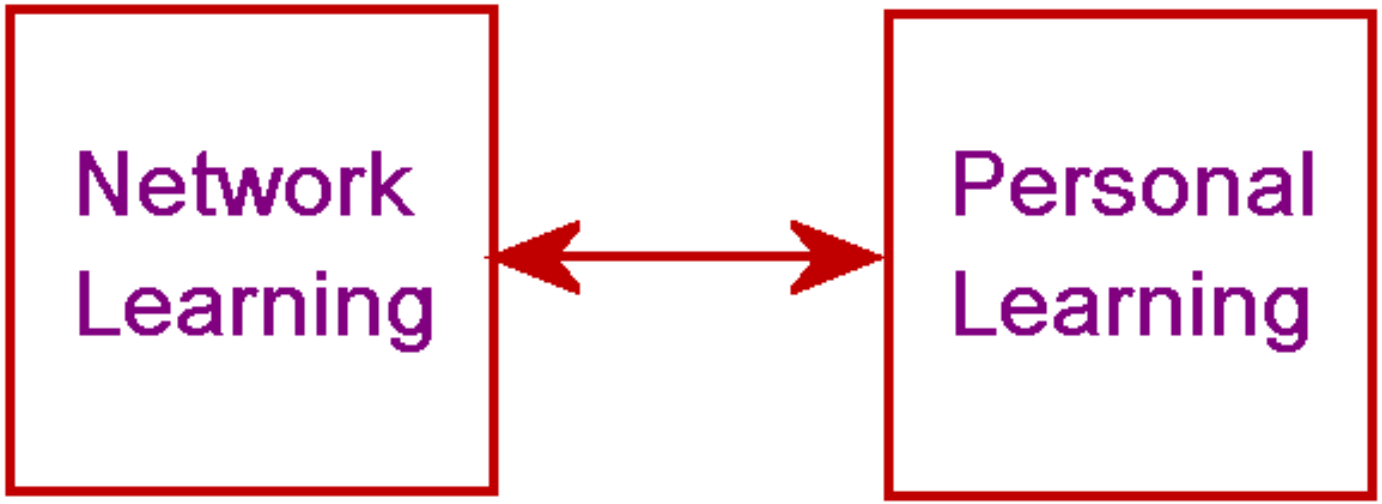
- Representational State Transfer (REST)

- Application Program Interface (API) and Mash-Ups

- Javascript Object Notation (JSON)

- OpenID

The way networks learn is the way people learn…

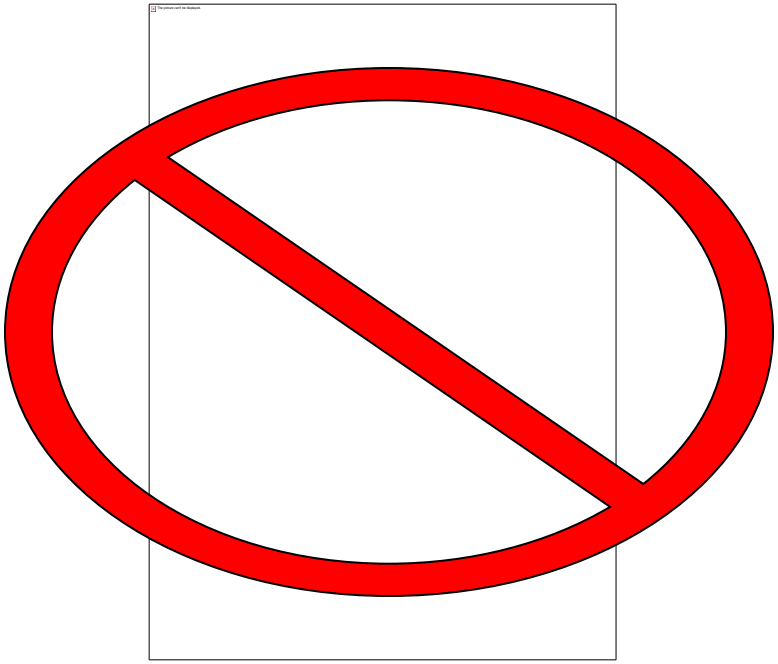


- they are both complex systems
- the organization of each depends on connections

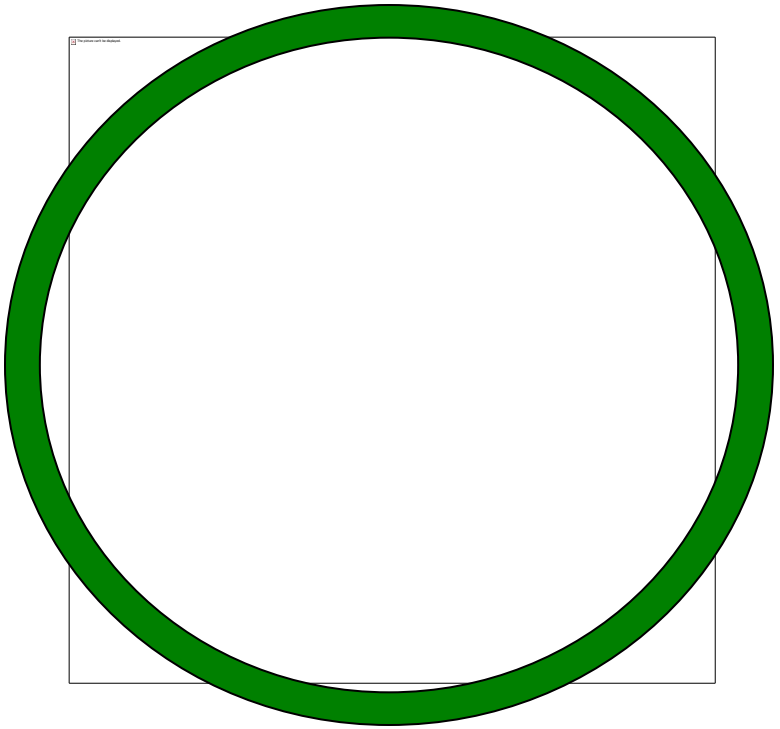
Connectivism (George Siemens)

E-Learning 2.0

The idea is that learning is *not* based on *objects* and *contents* that are stored, as though in a library



Rather, the idea is that learning is like a utility - like water or electricity - that flows in a network or a grip, that we tap into when we want



The Concept

- Learner centered

Learning is centered around the interests of the learner

Learning is *owned* by the learner

This implies learner choice of subjects, materials, learning styles

- Immersive learning

This learning is immersive – learning by doing

- Connected Learning

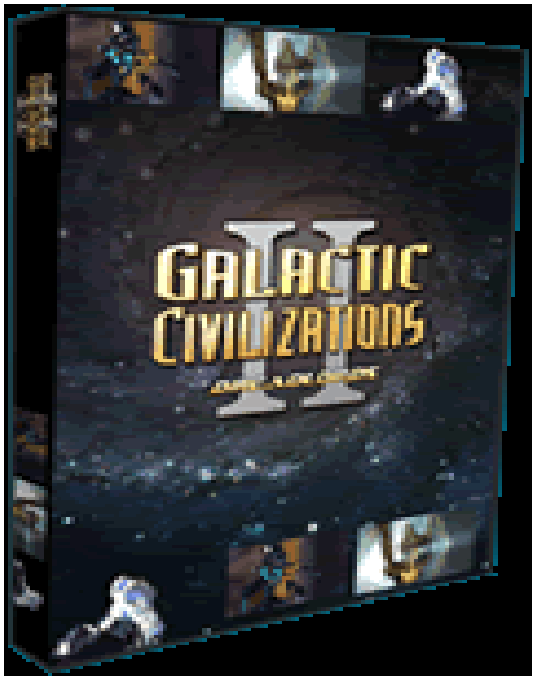
The computer connects the student to the rest of the world

Learning occurs through connections with other learners

Learning is based on conversation and interaction

Examples

- Game-based learning

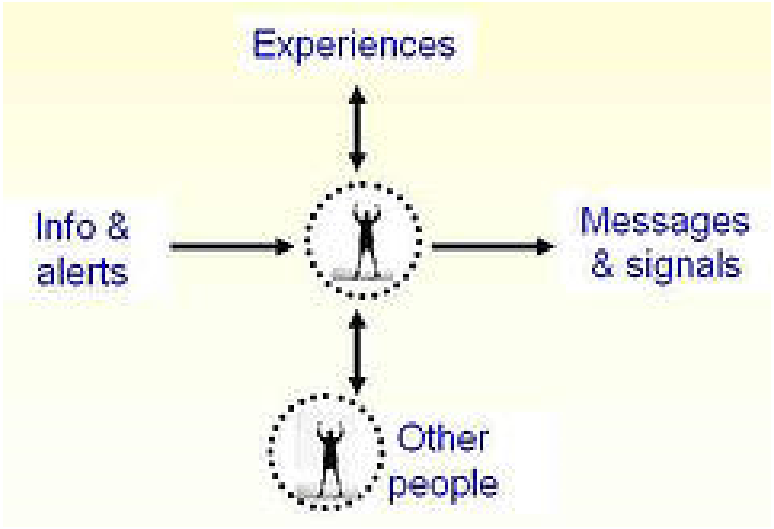


Types:

Branching, Spreadsheet, Quiz Game, Simulation Lab…

http://www.downes.ca/post/11

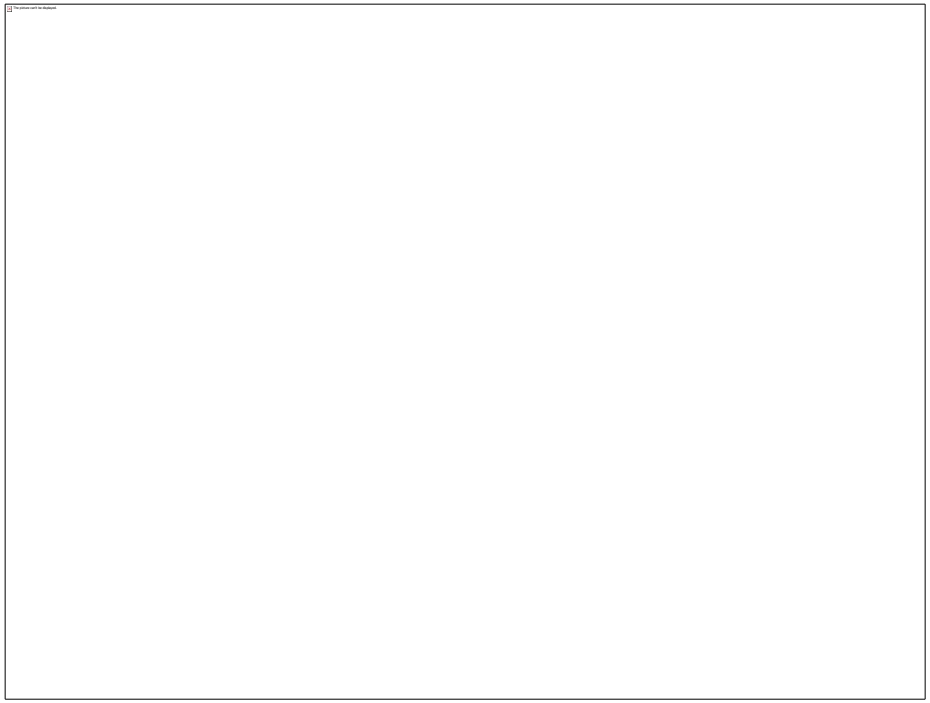
- Workflow (Informal) Learning



Types: EPSS, Community of Practice, Environment, Visualization…

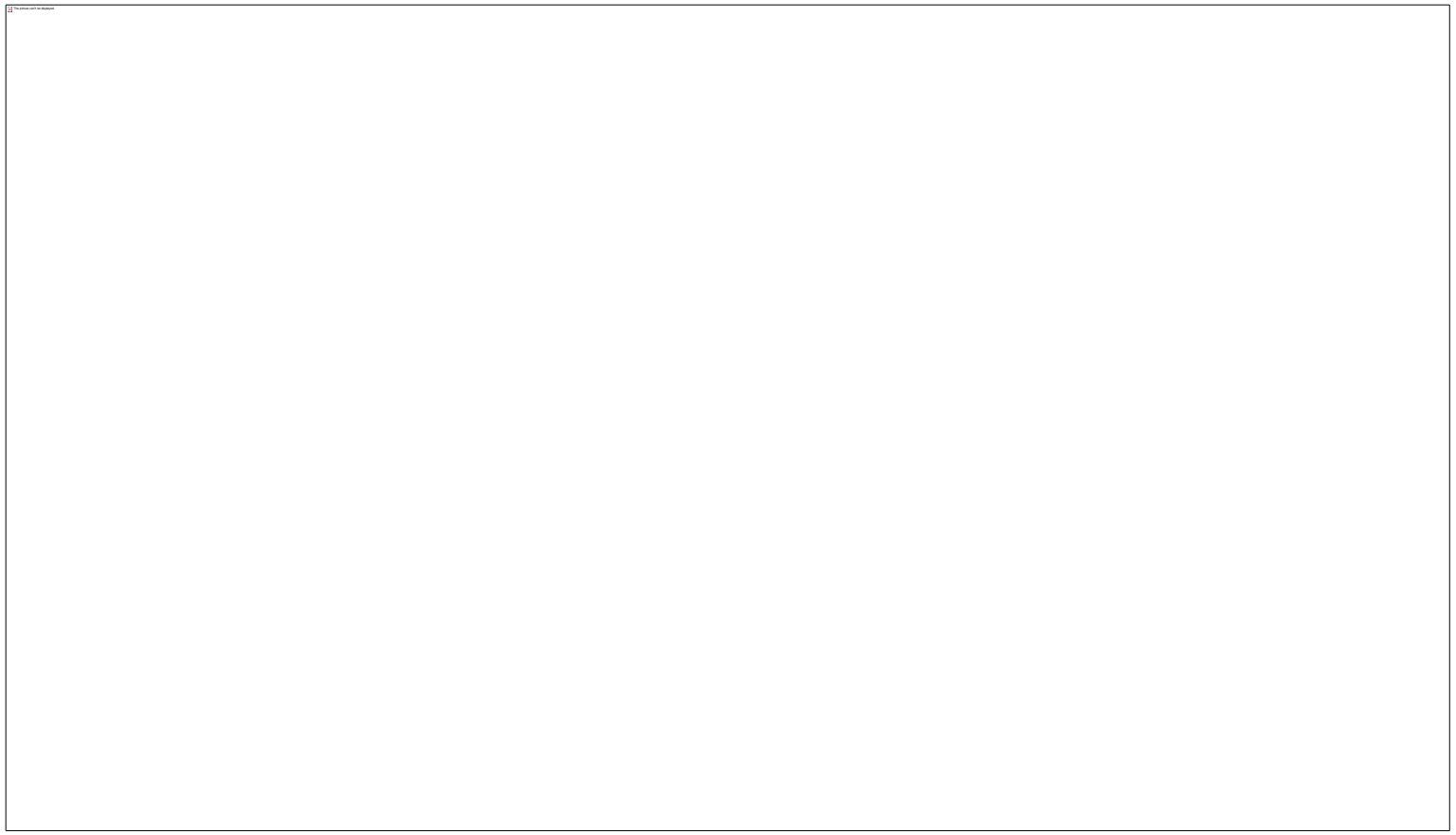
http://metatime.blogspot.com/

- Mobile Learning



Examples:

Co-op learning, drill and flash-card, instant mesaging, field trips, resource capture (like this talk!)



http://www.pwlan.org.tw/ct.asp?xItem=200&CtNode=501&mp=5

Online Learning at the Crossroads

- On the one hand – we have developed tools and systems intended to support traditional classroom based learning

- On the other hand – we *could* (should?) be developing tools and systems to support immersive learning. We should be developing for dynamic, immersive, *living* systems…

First Iteration: User-Produced Media

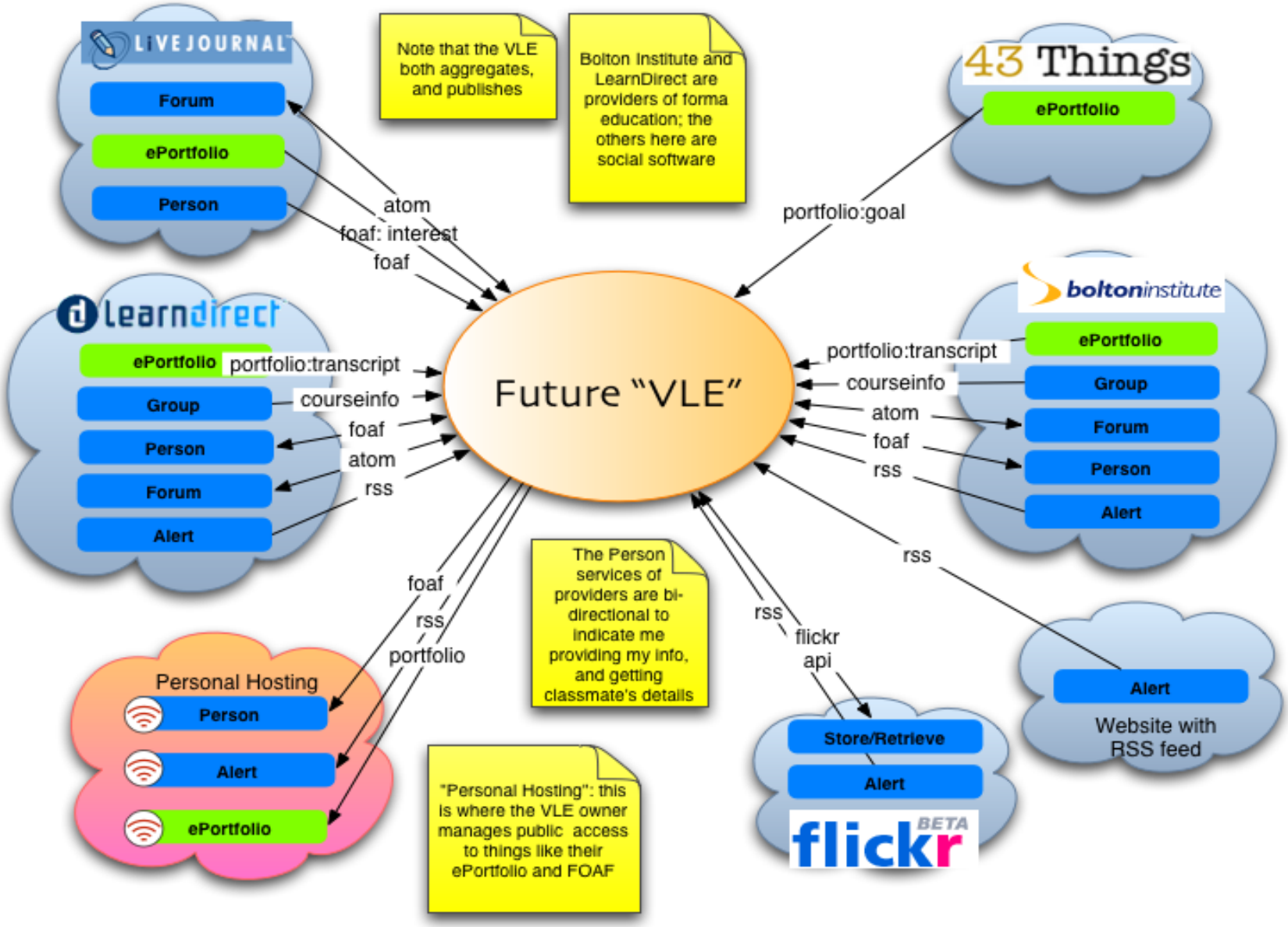
- Blogs and Blogging
- Podcasting and Vodcasting
- Game mods and other multimedia

Web 2.0: The Learning Network

- The e-Portfolio lives in the intersection between the worlds for education, work, and home
- A model for e-Portfolio as a learner-managed construct
- Key requirement is easy-to-use tools and hosting services*
- *E.g. the “e-Portfolio-as-blog” approach

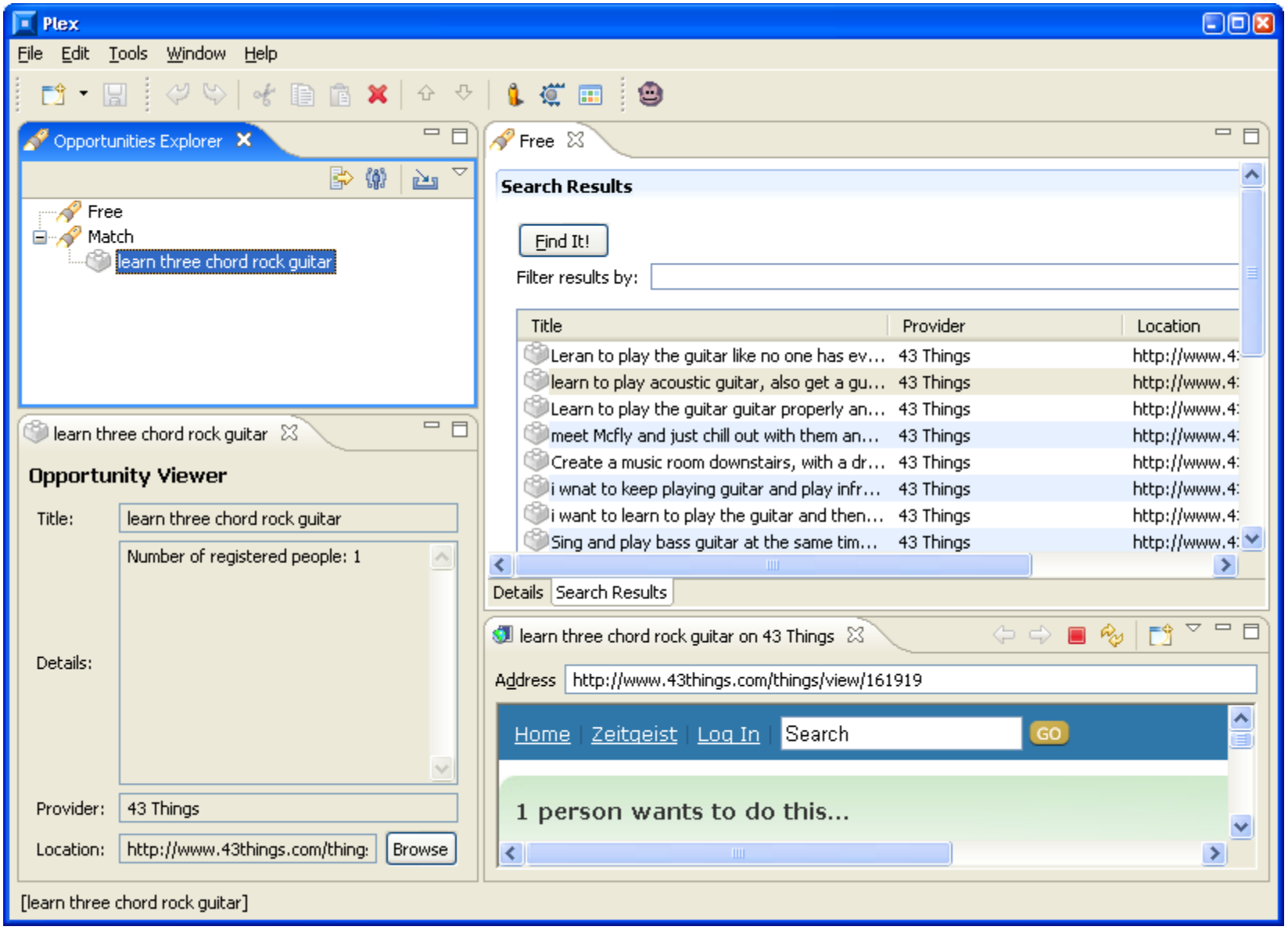
Scott Wilson:
http://www.cetis.ac.uk/members/scott/entries/20050523083528

The Idea of the PLE…



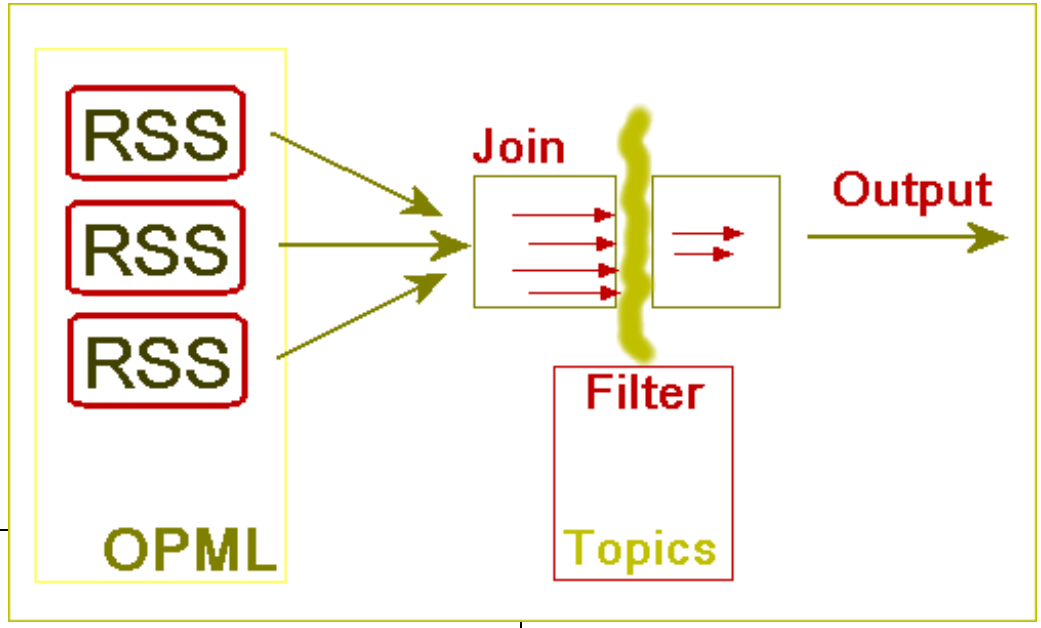
http://www.cetis.ac.uk/members/ple/resources/edf.ppt

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

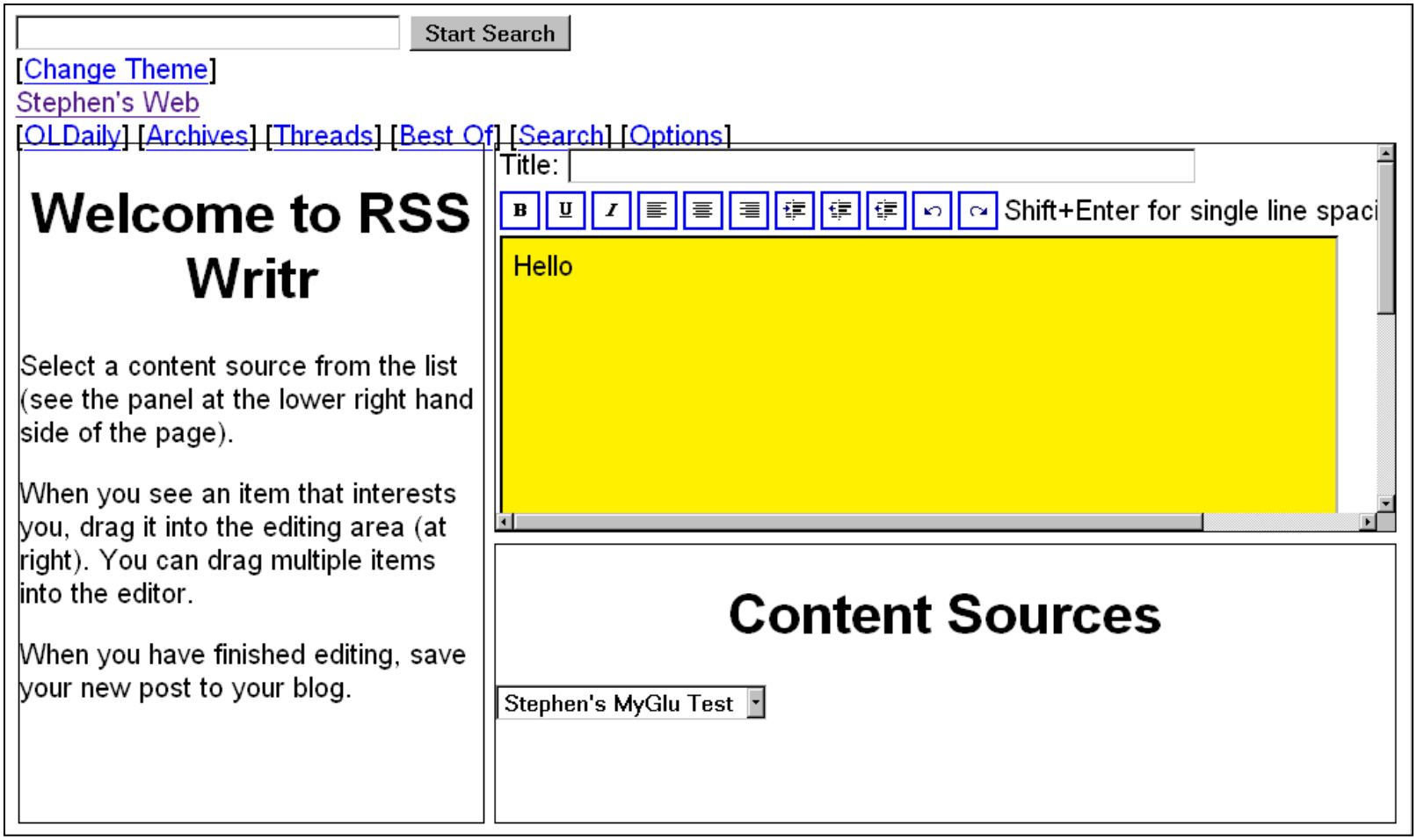
About

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)

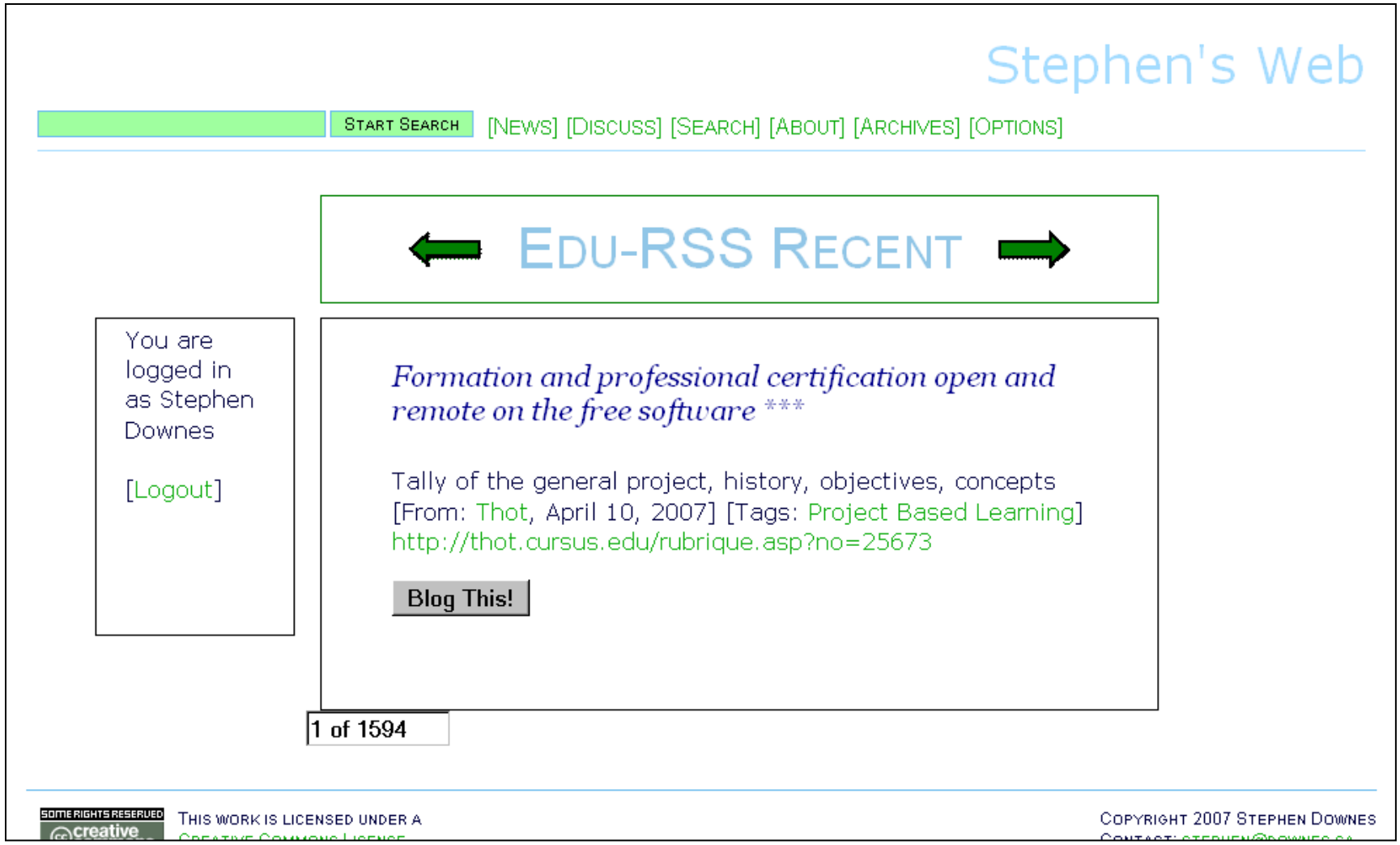
Harvesting http://www.downes.ca/news/OLDaily.xml
Feedfile is: myglu/feedcache/www.downes.ca_news_OLDaily.xml
No content. Harvesting from source.
URL: http://www.downes.ca/news/OLDaily.xml
Parsing Feed=HASH(0x9f0ef8c)

RSS Writr



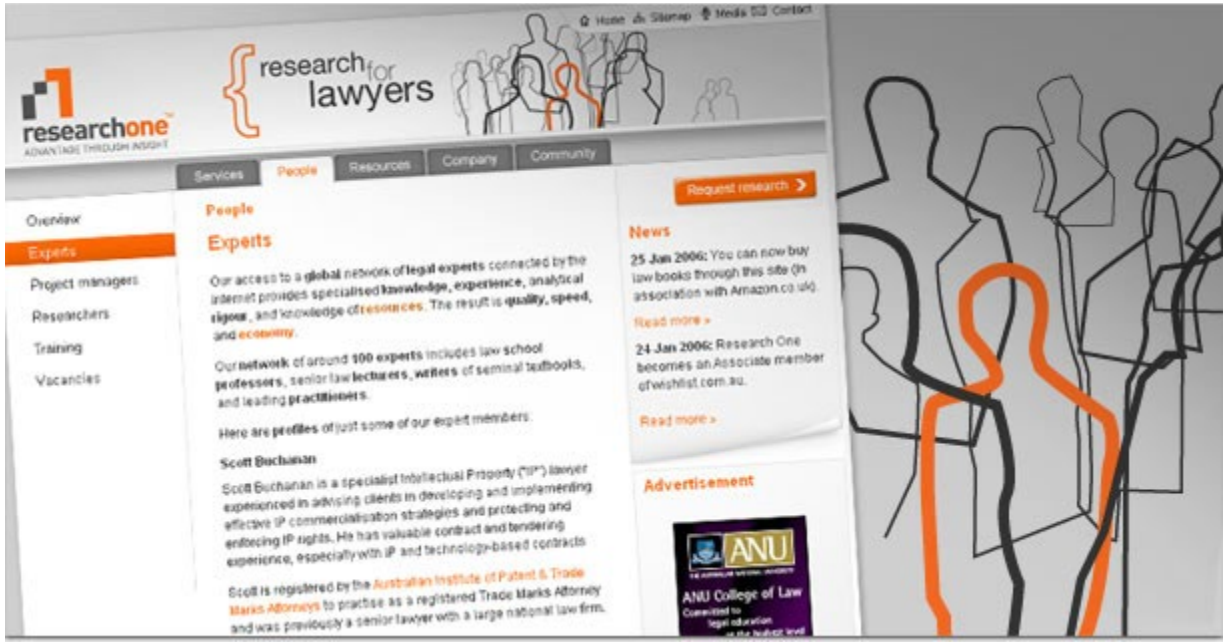
http://www.downes.ca/editor/writr.htm

Edu_RSS Viewer



http://www.downes.ca/cgi-bin/page.cgi?action=viewer

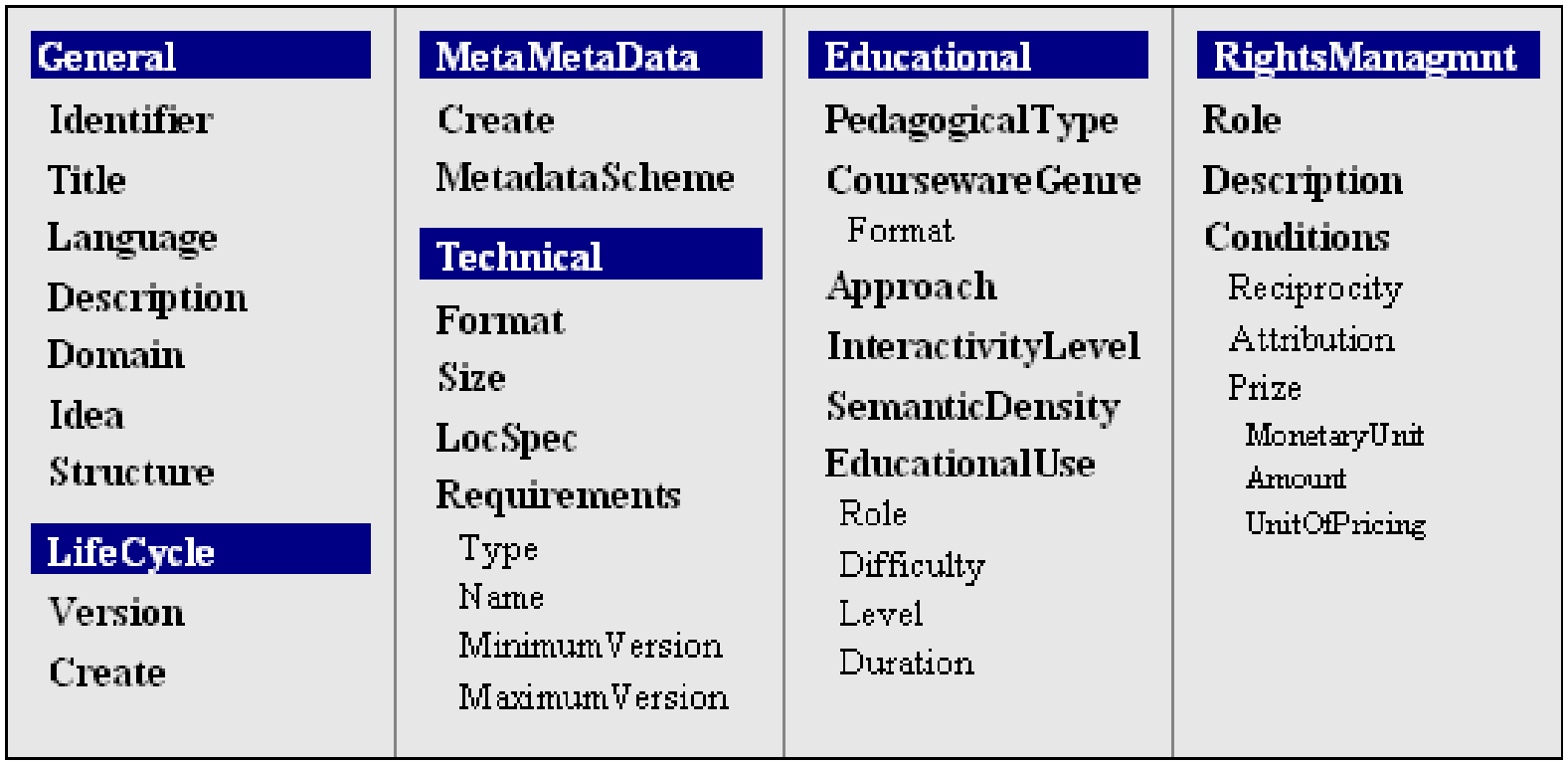
The Challenge…



How to find the *right* resource…

- at the right time
- for the right person

The old way – use descriptions



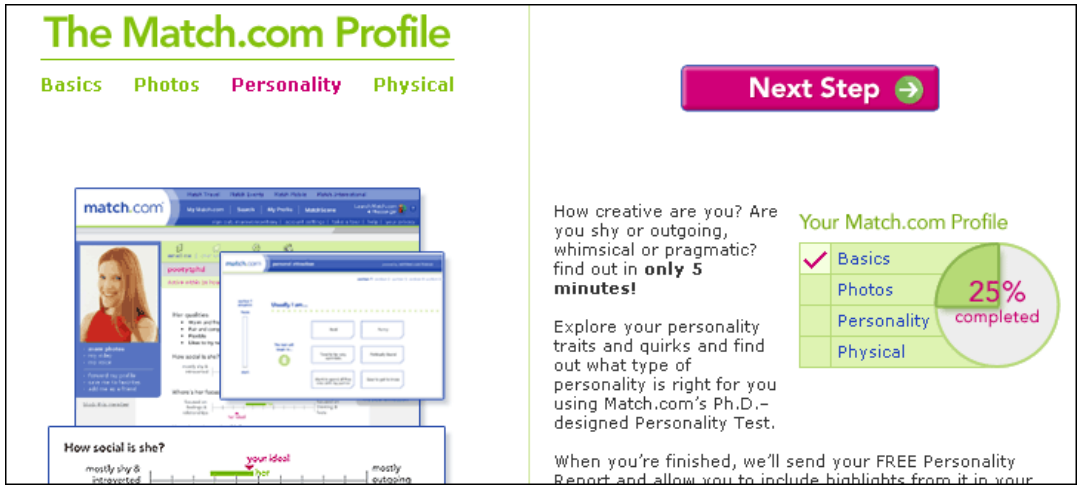
http://www.capuano.biz/Papers/ITS%202000/ITS%202000.htm

- Dublin Core
- Learning Object Metadata

The New Way: Recommender Systems

A are mapped between:

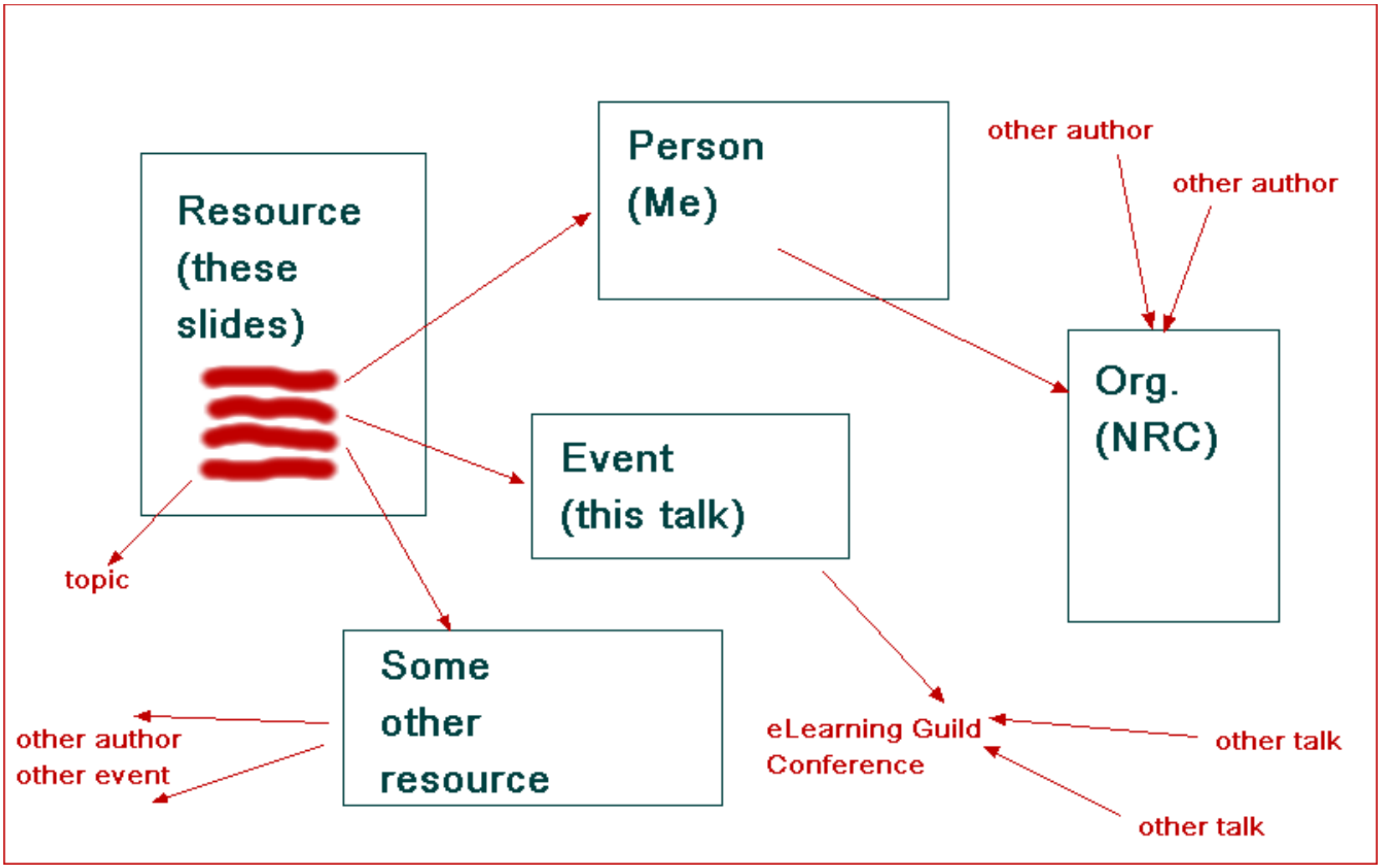
- User profile – properties of given users
- Resource profile – properties of the resource
- Previous evaluations of other resources



http://www.slideshare.net/Downes/projecting-quality

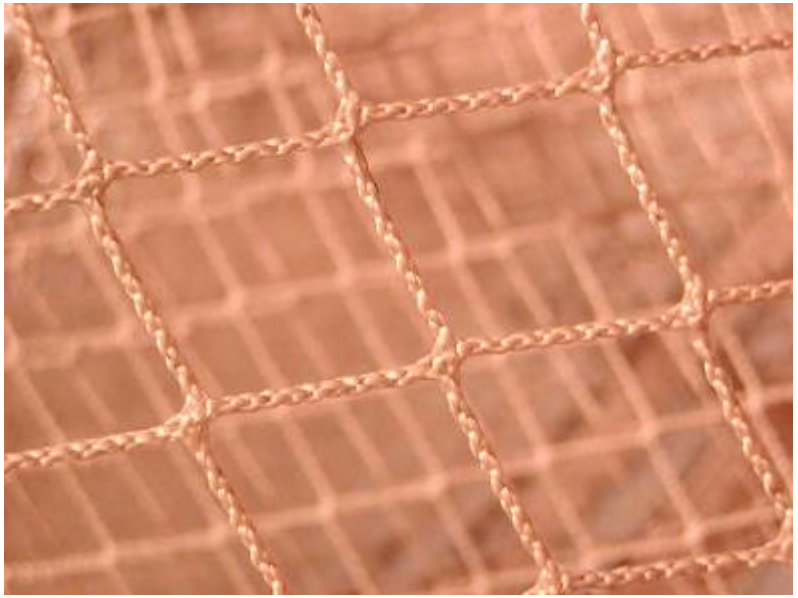
http://www.slideshare.net/Downes/quality-standards-its-all-about-teaching-and-learning/

Relations between Entities…



Finding Resources is like Finding Patterns in the Mesh

the knowledge is in the network



Old: universals

- rules
- categories

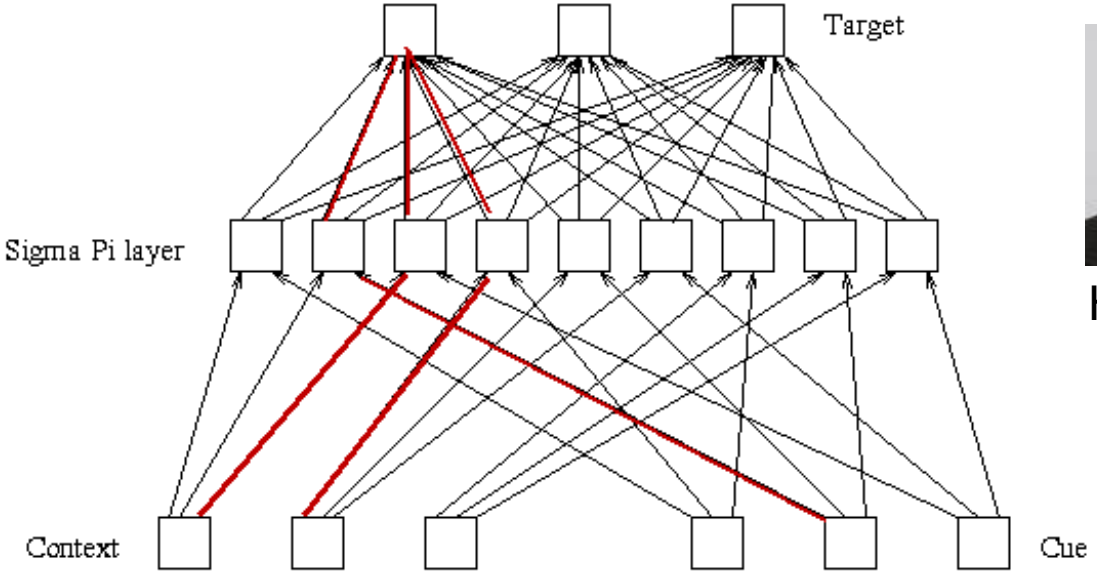
New: patterns

- patterns
- similarities

the knowledge *is* the network

http://www.bbsonline.org/Preprints/OldArchive/bbs.tenenbaum.html

stands for?

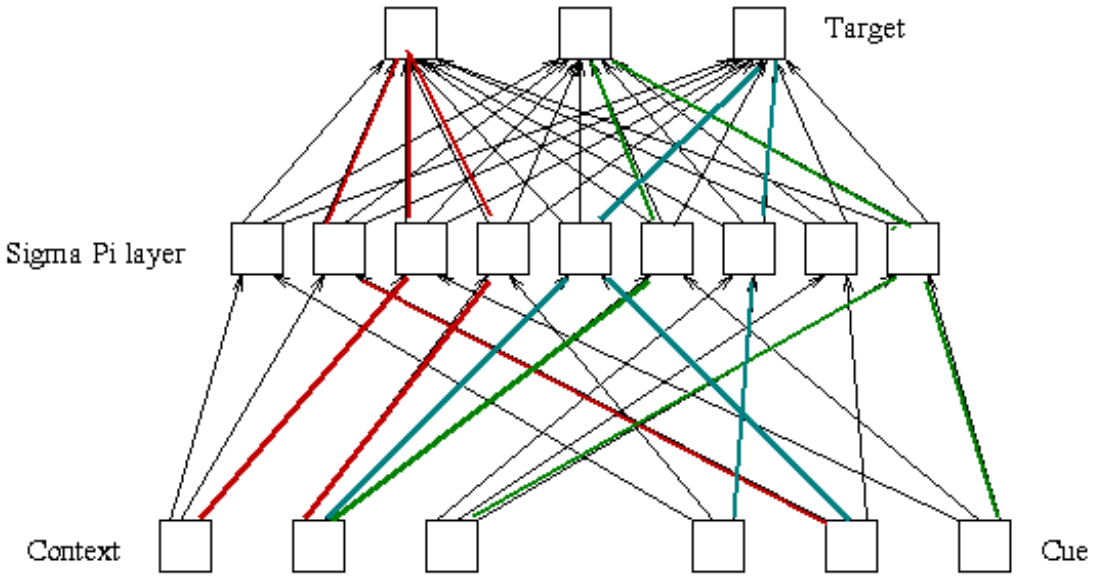


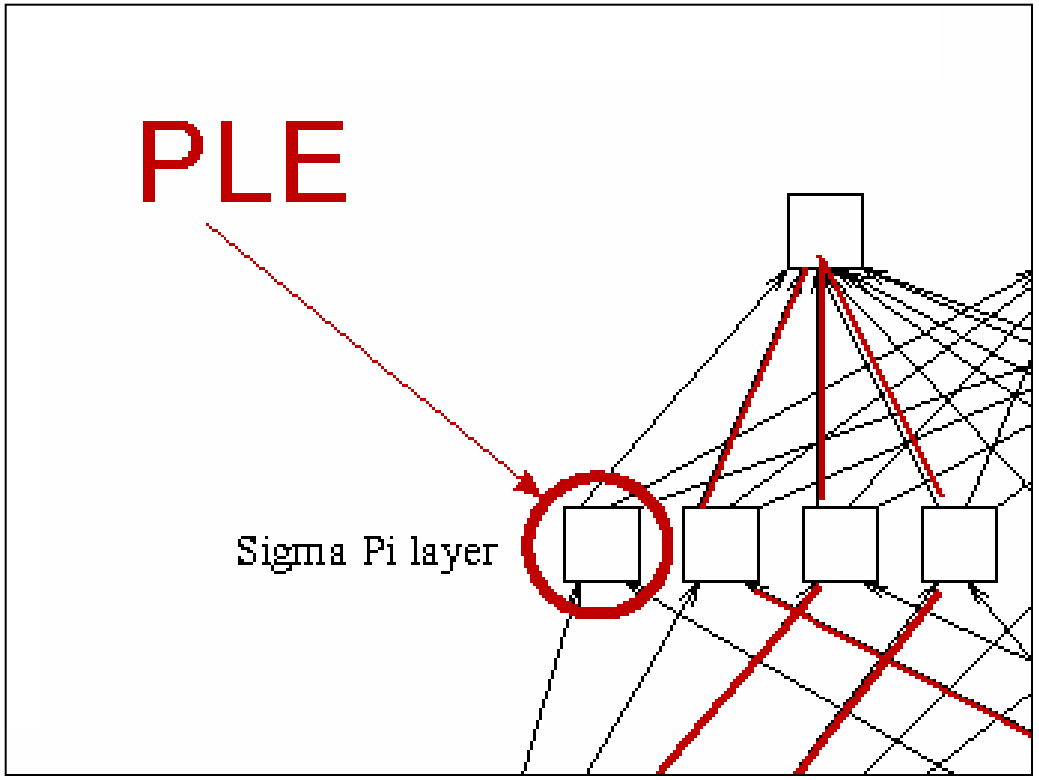
Hopfield

Or is caused by?

Distributed Representation

= a pattern of connectivity


Target
Sigma Pi layer
Context
Cue

BRING BACK THE COUCH

Where is the PLE?