

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...

Muddog Mud

Stephen's
Guide to the
Logical
Fallacies

1994

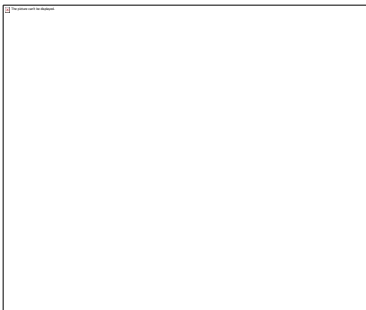
1995

1996

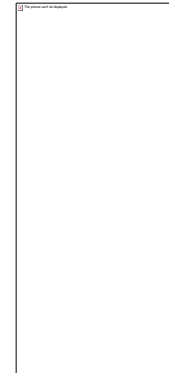


Athabaska BBS

Painted Porch



Maximus



Future of Online Learning

CAE



Learning
Objects

modules

1997

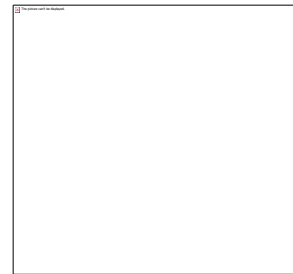
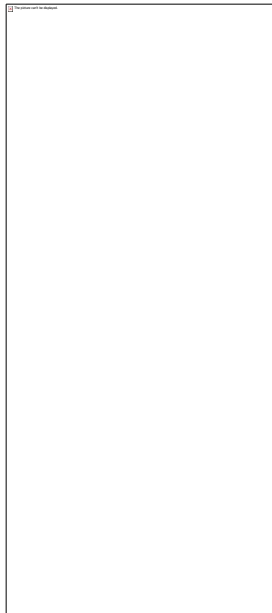
1998

1999

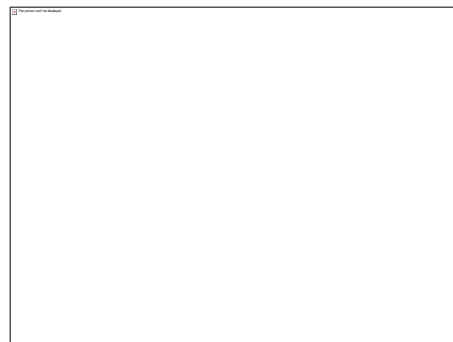
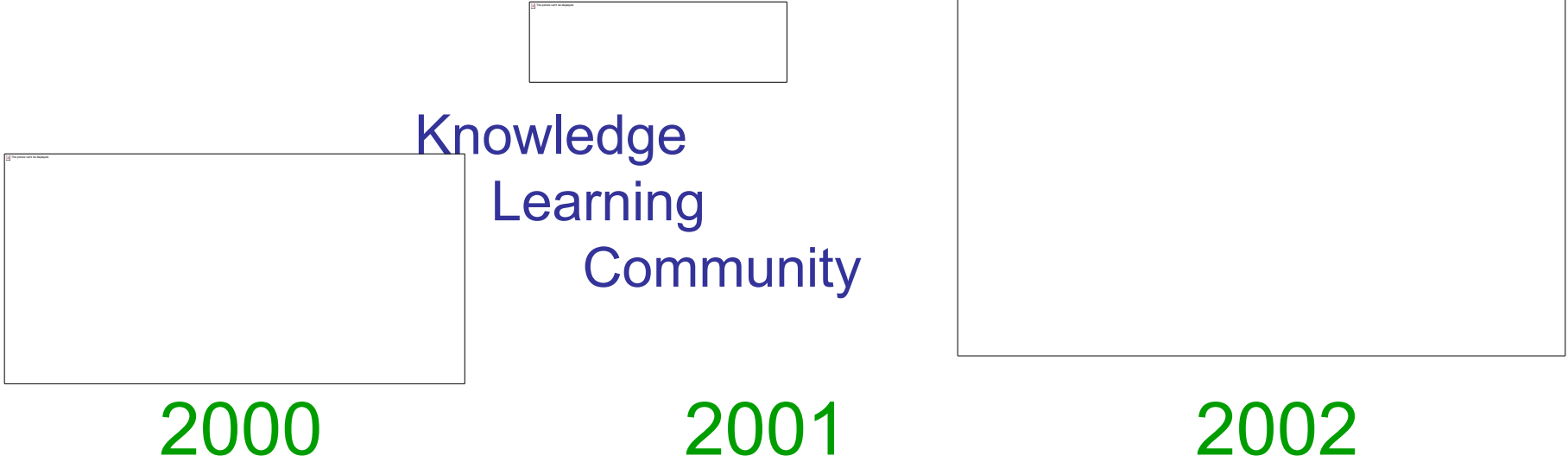


Online Learning Environment

The
Brandon
Pages

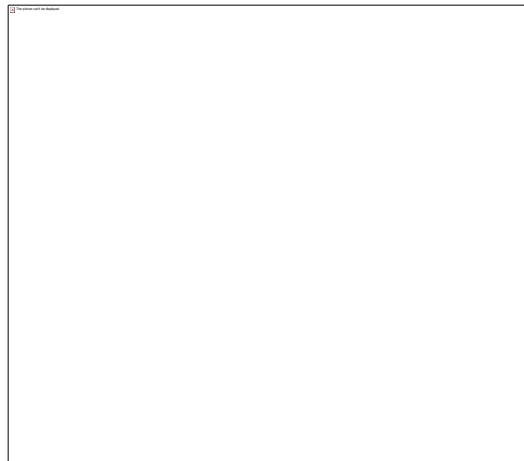


OLe



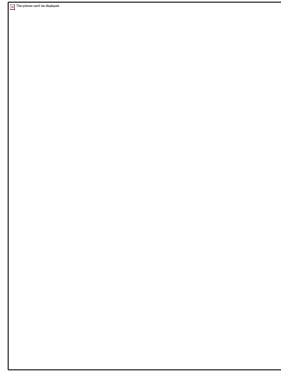
MuniMall

PEGGAsus

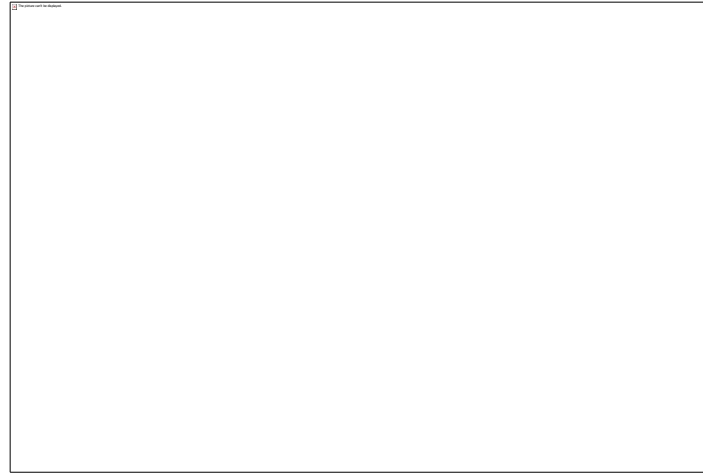


OLDaily

The Learning Marketplace



2003



2004

2005



Edu-RSS

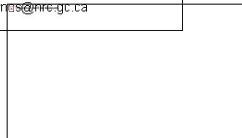
eduSourceCanada eduSource LOM Tagger

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Select ODRL or Create New OD	Free Giveaway Demo 10 Views Ten Dollar Special Full Reuse CC Attribute Share Alike

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Licensing Contributors

DDRM

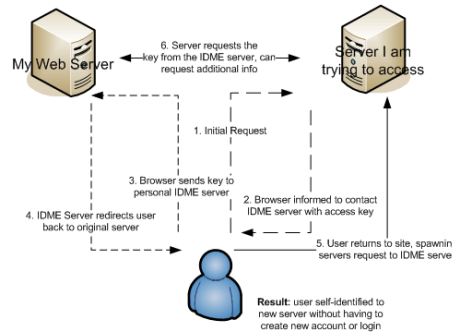


Ed Radio

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 Sprinkle](#) - [Education Podcast Network](#)



The Core Technologies



- Social Networking

- Tagging

- Asynchronous Javascript and XML (AJAX)

Jesse James Garrett in February 2005.



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

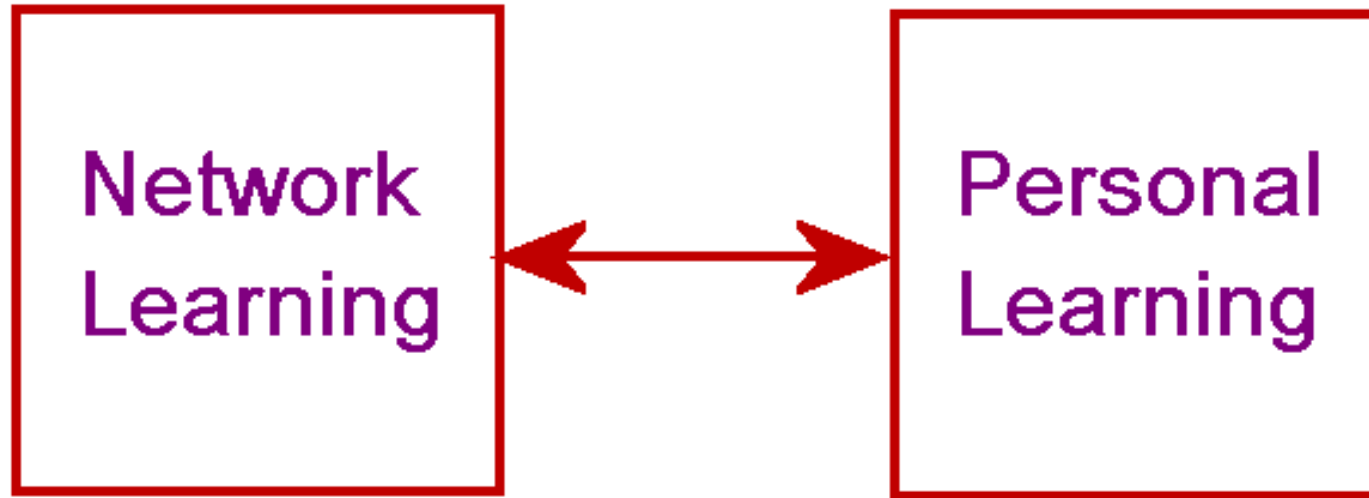
- Representational State Transfer (REST)

- Application Program Interface (API) and Mash-Ups

- Javascript
Object
Notation
(JSON)

- OpenID

The way networks learn is the way people learn...

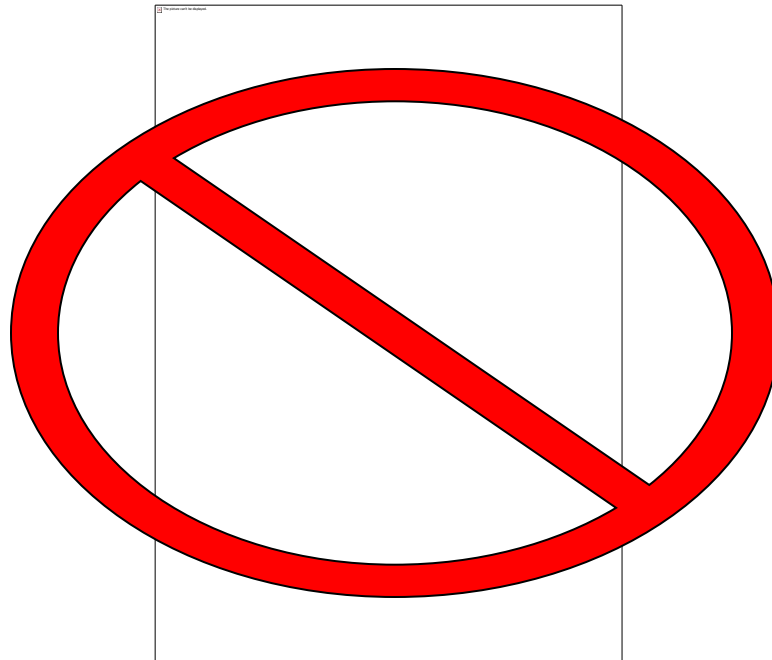


- they are both complex systems
- the organization of each depends on connections

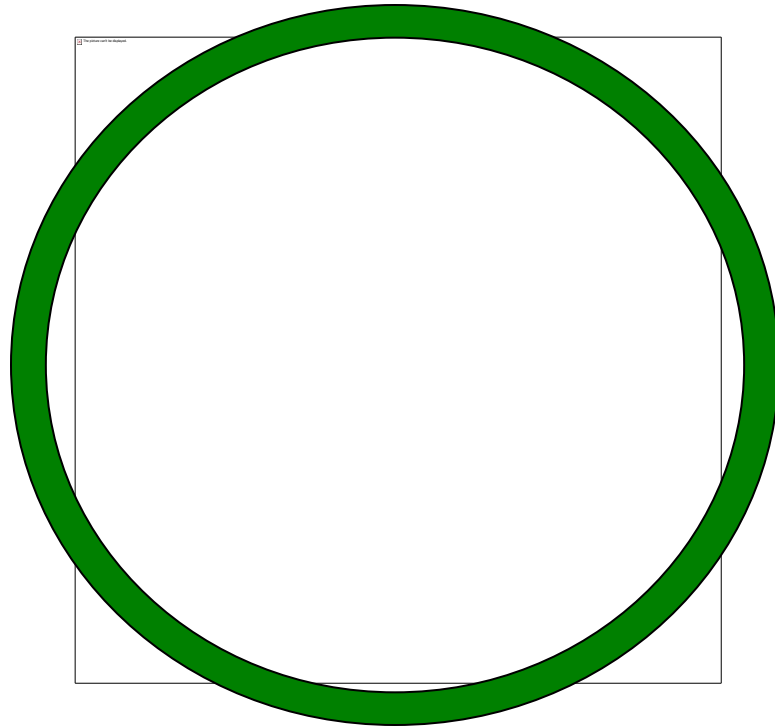
Connectivism (George Siemens)

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

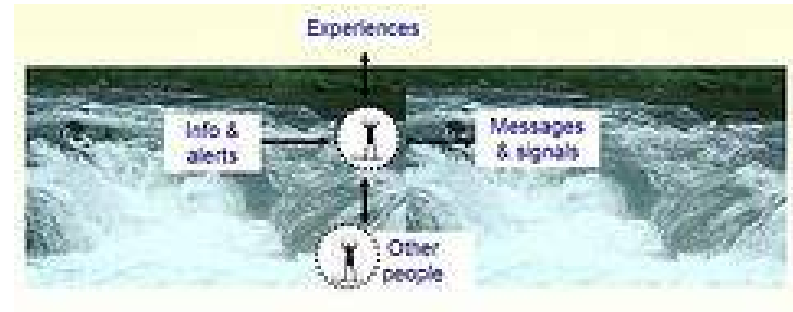
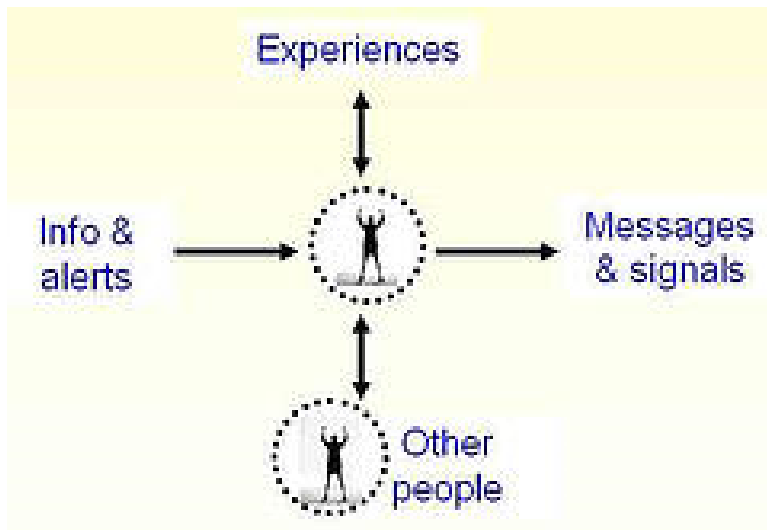


Types:

Branching, Spreadsheet, Quiz Game, Simulation Lab...

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

- Workflow (Informal) Learning



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

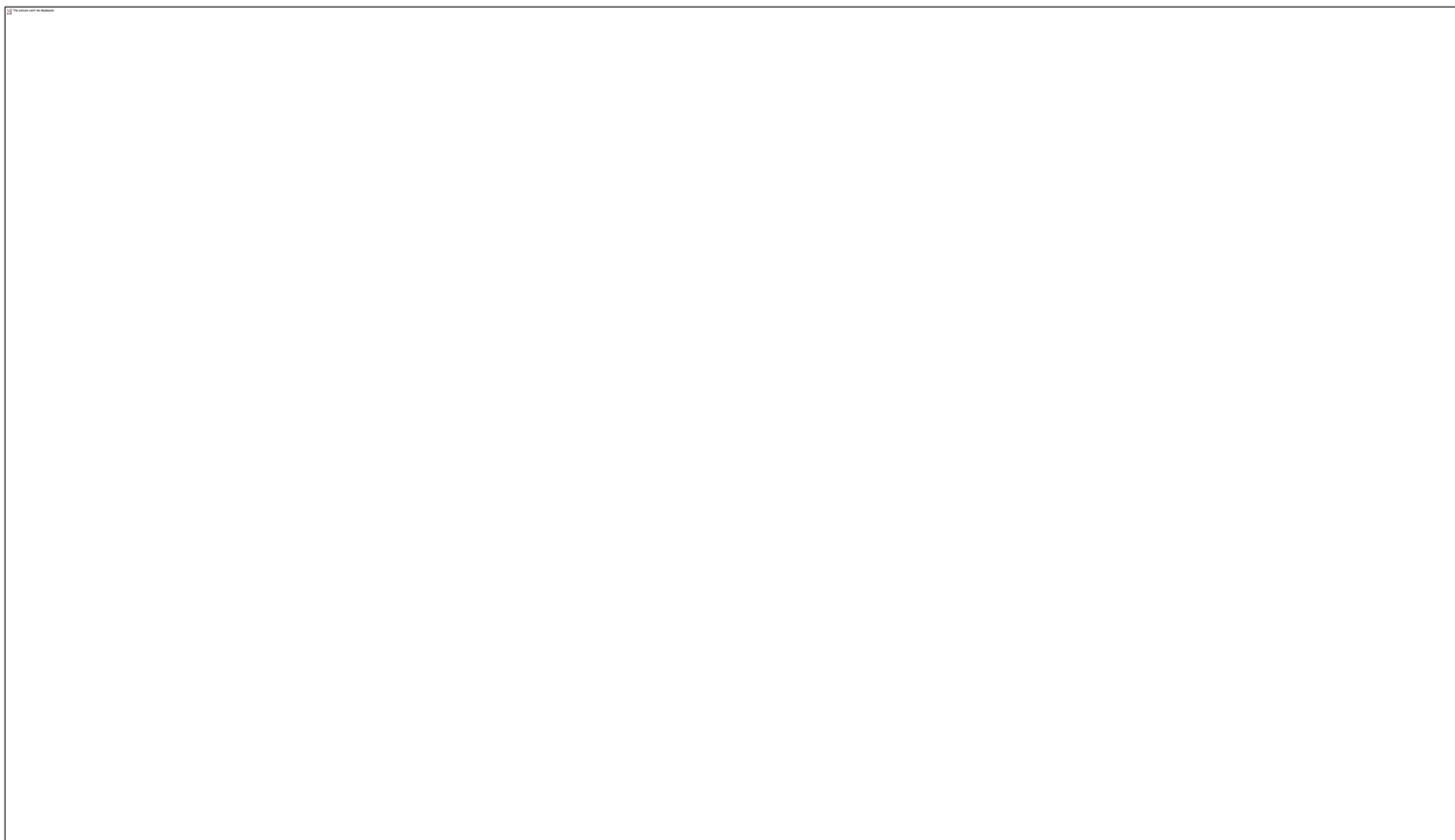
<http://metatime.blogspot.com/>

- Mobile Learning



Examples:

Co-op learning, drill and flash-card,
instant messaging, 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



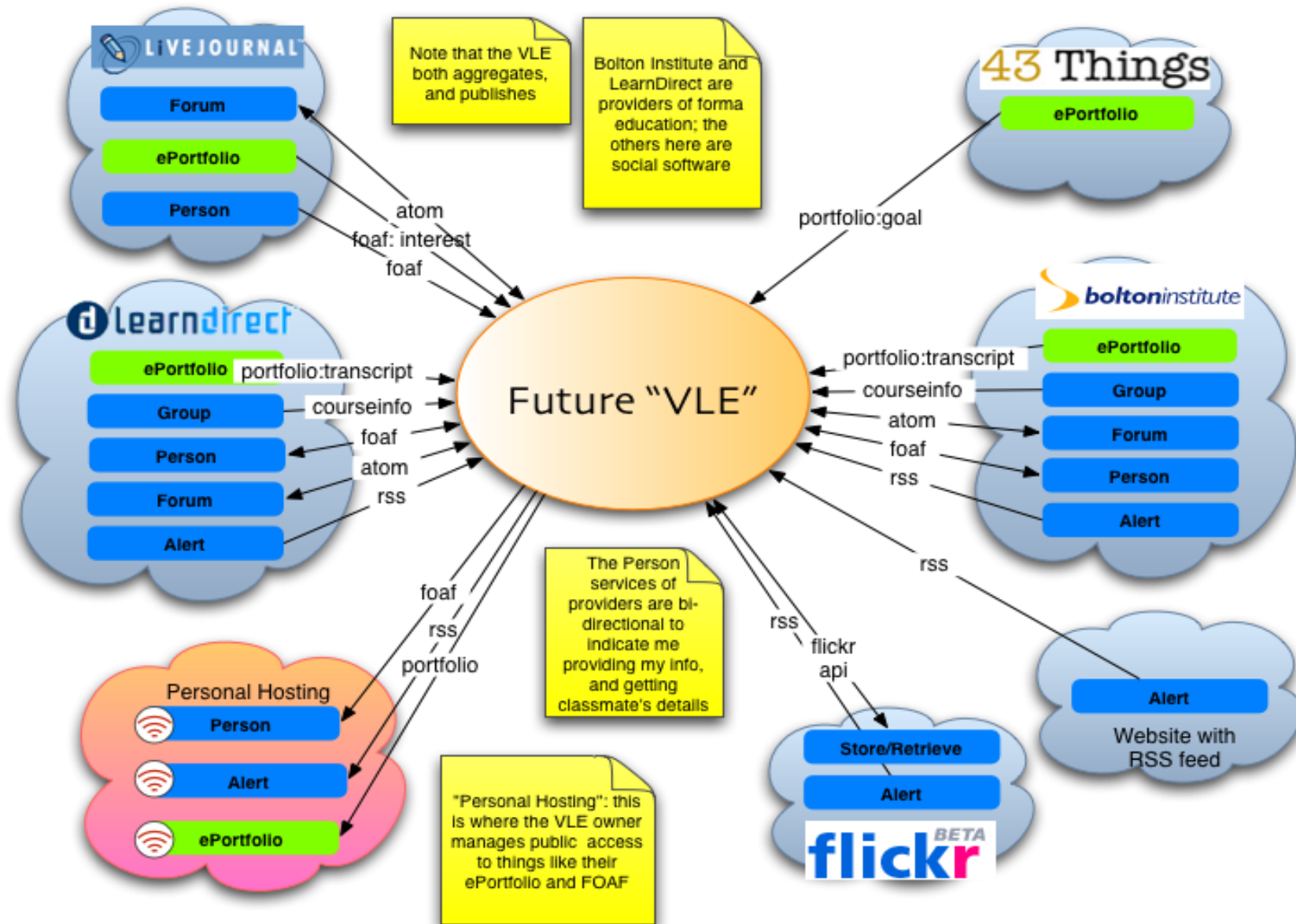
Web 2.0: The Learning Network

- 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....



Plex Personal Learning Environment Example

The screenshot displays the Plex Personal Learning Environment interface. The main window is titled 'Plex' and contains several panes:

- Opportunities Explorer:** A tree view on the left showing a hierarchy of opportunities. The selected item is 'learn three chord rock guitar'.
- Opportunity Viewer:** A pane on the bottom left showing details for the selected opportunity. It includes fields for Title, Number of registered people, Provider, and Location.
- Search Results:** A pane on the right showing a list of search results for the query 'learn three chord rock guitar'. The results are displayed in a table with columns for Title, Provider, and Location.
- Web Browser:** A pane at the bottom right showing the details of the selected opportunity on the 43 Things website.

The search results table is as follows:

Title	Provider	Location
Leran to play the guitar like no one has ev...	43 Things	http://www.43things.com/things/view/161919
learn to play acoustic guitar, also get a gu...	43 Things	http://www.43things.com/things/view/161919
Learn to play the guitar guitar properly an...	43 Things	http://www.43things.com/things/view/161919
meet Mcfly and just chill out with them an...	43 Things	http://www.43things.com/things/view/161919
Create a music room downstairs, with a dr...	43 Things	http://www.43things.com/things/view/161919
i want to keep playing guitar and play infr...	43 Things	http://www.43things.com/things/view/161919
i want to learn to play the guitar and then...	43 Things	http://www.43things.com/things/view/161919
Sing and play bass guitar at the same tim...	43 Things	http://www.43things.com/things/view/161919

The web browser pane shows the details of the selected opportunity on the 43 Things website. The address bar shows the URL: <http://www.43things.com/things/view/161919>. The page content includes a search bar, a 'GO' button, and a message: '1 person wants to do this...'.

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)

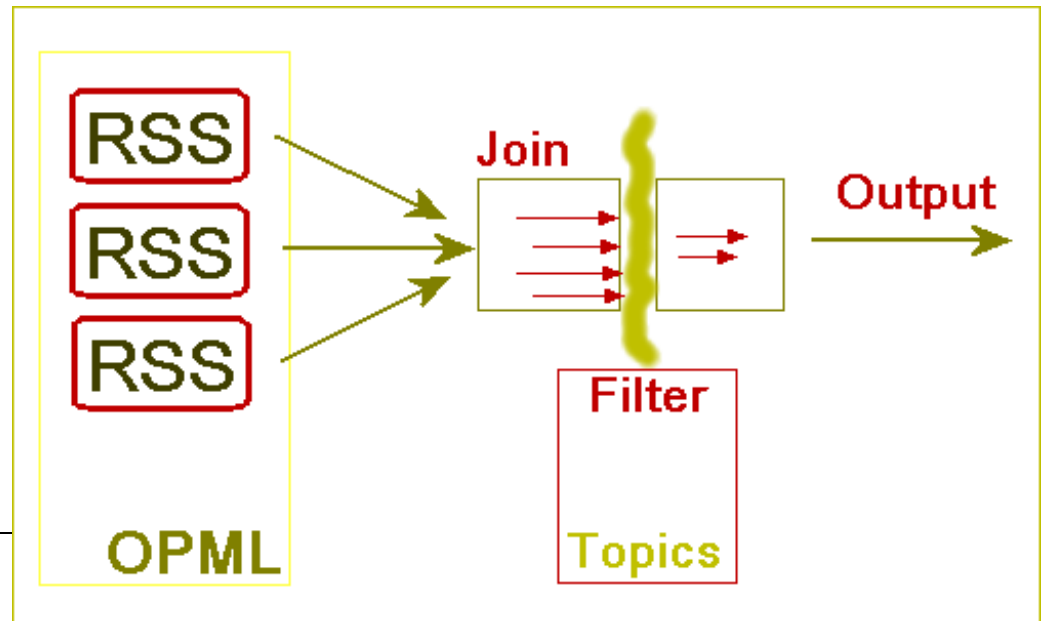
Harvesting <http://www.downes.ca/news/OLDaily.xml>

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

Start Search

[\[Change Theme\]](#)
[Stephen's Web](#)
[\[OLDaily\]](#) [\[Archives\]](#) [\[Threads\]](#) [\[Best Of\]](#) [\[Search\]](#) [\[Options\]](#)

Welcome to RSS Writr

Select a content source from the list
(see the panel at the lower right hand
side of the page).

When you see an item that interests
you, drag it into the editing area (at
right). You can drag multiple items
into the editor.

When you have finished editing, save
your new post to your blog.

Title:

B

U

I

Shift+Enter for single line space

Hello

Content Sources

Stephen's MyGlu Test

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

Edu_RSS Viewer

Stephen's Web

START SEARCH [NEWS] [DISCUSS] [SEARCH] [ABOUT] [ARCHIVES] [OPTIONS]

← EDU-RSS RECENT →

You are logged in as Stephen Downes


[Logout]

*Formation and professional certification open and remote on the free software ****

Tally of the general project, history, objectives, concepts
[From: [Thot](#), April 10, 2007] [Tags: [Project Based Learning](#)]
<http://thot.cursus.edu/rubrique.asp?no=25673>

[Blog This!](#)

1 of 1594

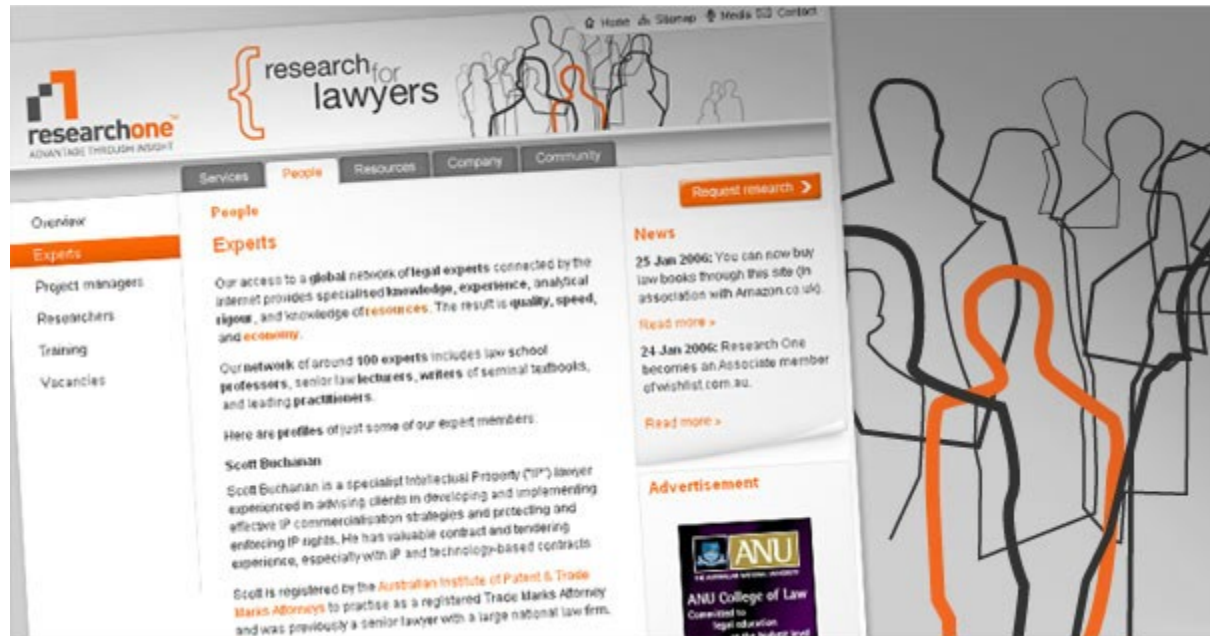
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<http://www.downes.ca/cgi-bin/page.cgi?action=viewer>

The Challenge...



How to find the *right* resource...

- at the right time
- for the right person

The old way – use descriptions

General Identifier Title Language Description Domain Idea Structure	MetaMetadata Create MetadataScheme Technical Format Size LocSpec Requirements Type Name MinimumVersion MaximumVersion	Educational PedagogicalType CoursewareGenre Format Approach InteractivityLevel SemanticDensity EducationalUse Role Difficulty Level Duration	RightsManagmnt Role Description Conditions Reciprocity Attribution Prize MonetaryUnit Amount UnitOfPricing
LifeCycle Version Create			

<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

The screenshot displays the 'The Match.com Profile' page with tabs for Basics, Photos, Personality, and Physical. The Personality tab is active, showing a 'Next Step' button and a progress indicator for the 'Your Match.com Profile' section. The progress bar shows 25% completed, with 'Basics' and 'Photos' marked as complete and 'Personality' and 'Physical' as pending. The text on the page encourages users to explore their personality traits and quirks through Match.com's Ph.D.-designed Personality Test, promising a free report upon completion.

The Match.com Profile

Basics Photos **Personality** Physical

Next Step →

How creative are you? Are you shy or outgoing, whimsical or pragmatic? find out in **only 5 minutes!**

Explore your personality traits and quirks and find out what type of personality is right for you using Match.com's Ph.D.-designed Personality Test.

When you're finished, we'll send your FREE Personality Report and allow you to include highlights from it in your

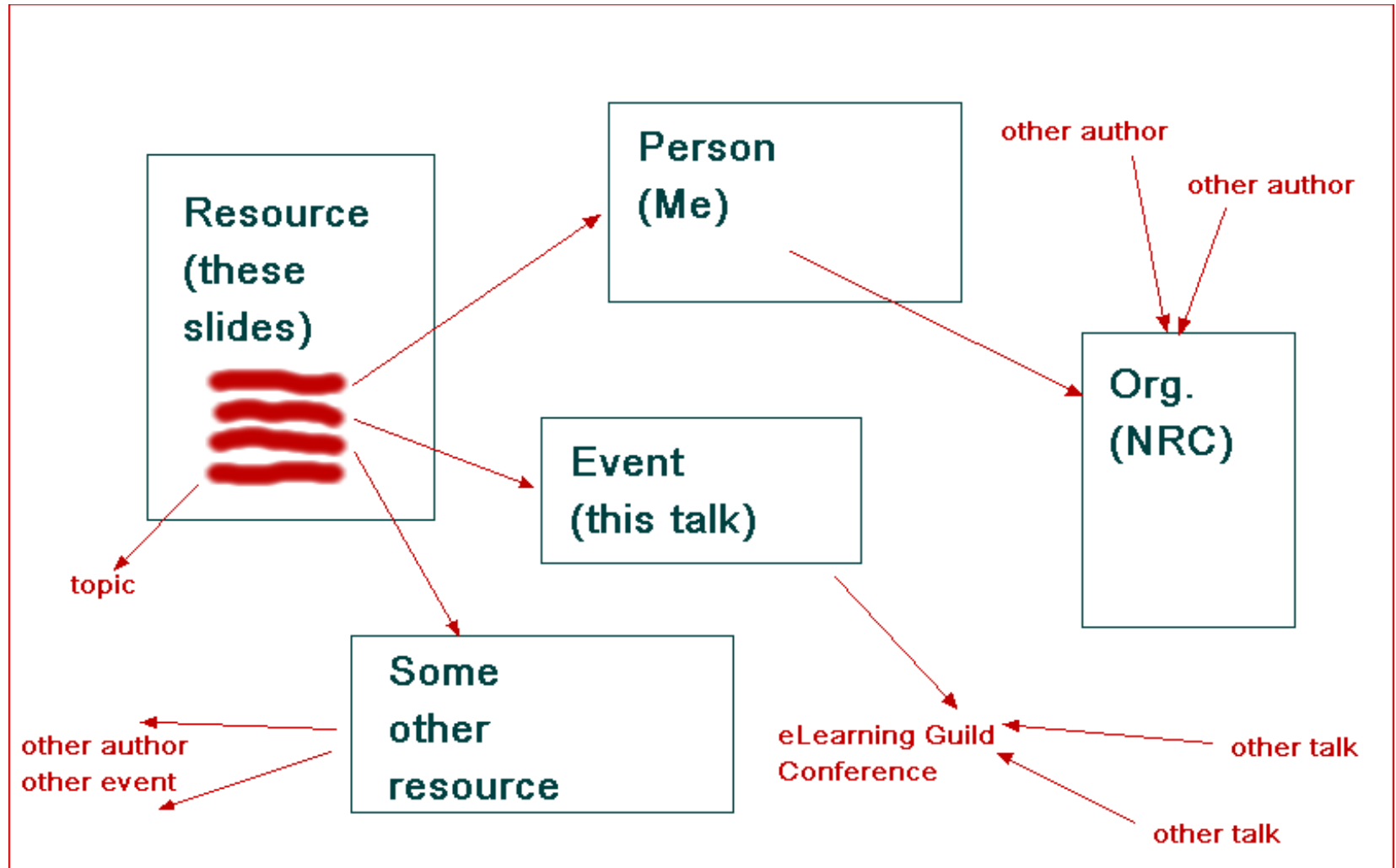
Your Match.com Profile

✓ Basics	25% completed
✓ Photos	
Personality	
Physical	

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

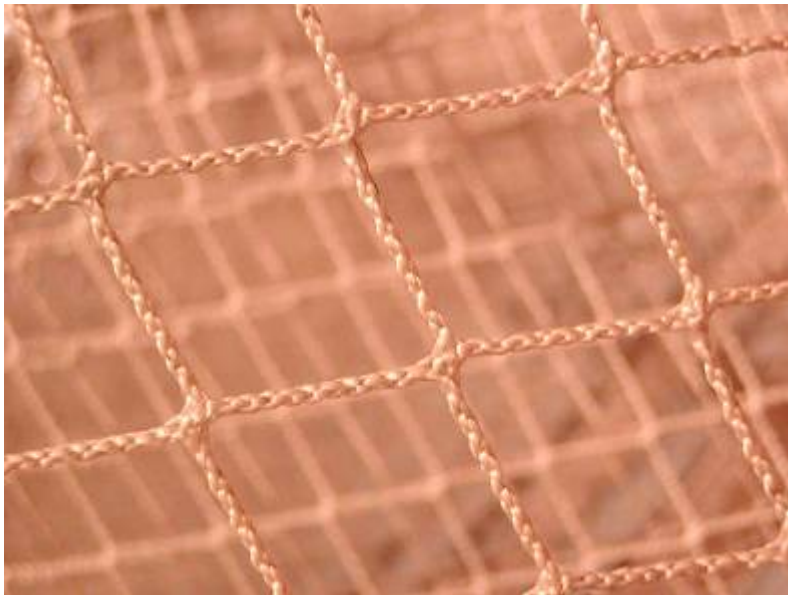
<http://www.slideshare.net/Downes/quality-standards-its-all-about-teaching-and-learning/>

Relations between Entities...



Finding Resources is like Finding Patterns in the Mesh

the knowledge is in the network



Old: universals

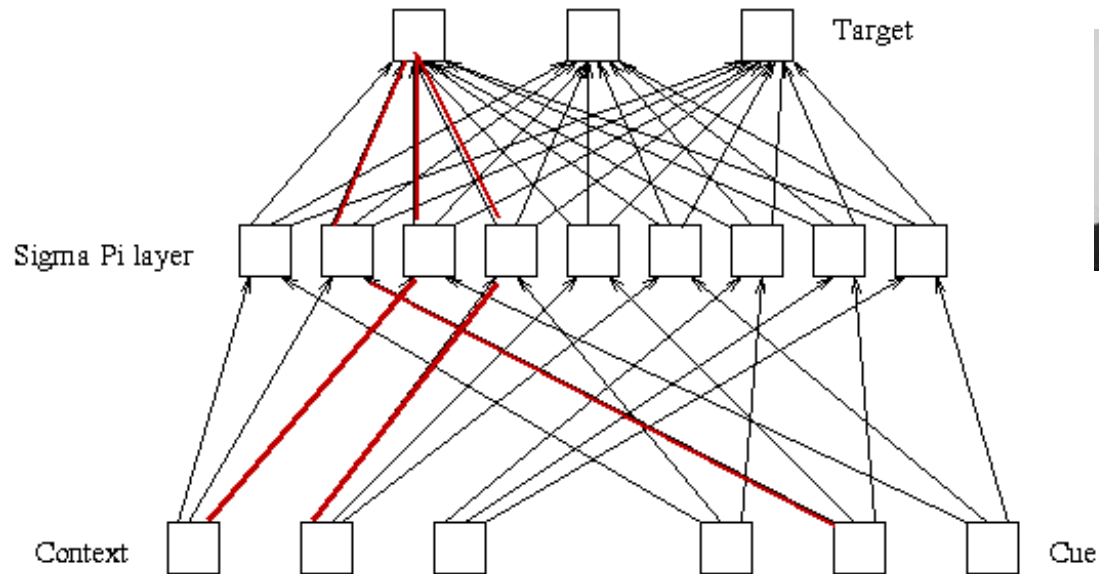
- rules
- categories

New: patterns

- patterns
- similarities

the knowledge *is* the network

stands for?

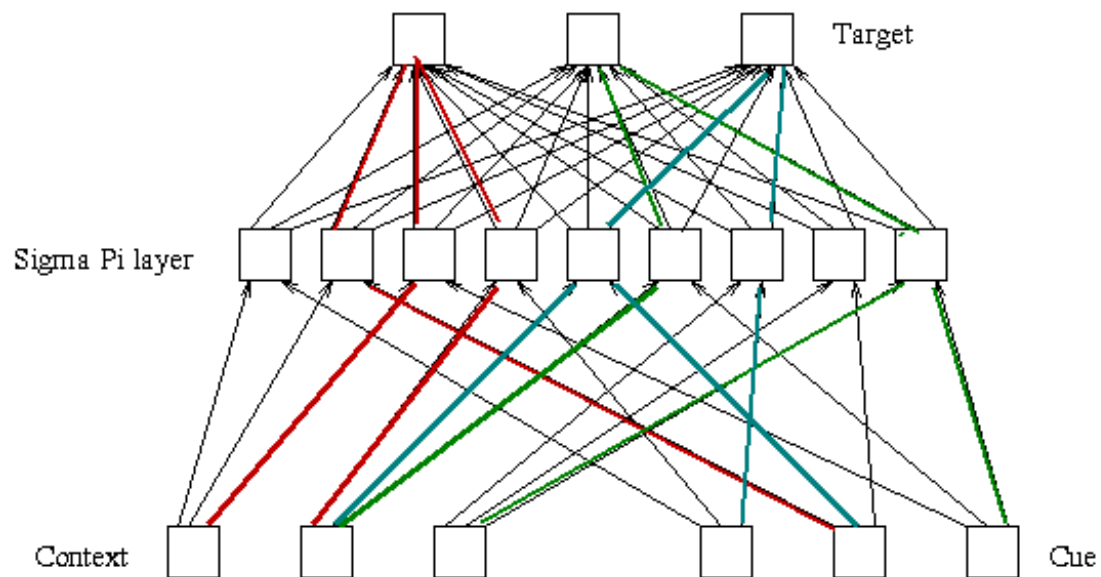


Hopfield

Or is caused by?

Distributed Representation

= a pattern of connectivity



Where is the PLE?

