



NRC-CNRC

*Institute for
Information
Technology*

E-Learning: A Kaleidoscope of Options

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National Research Council Canada

June 1, 2005



National Research
Council Canada

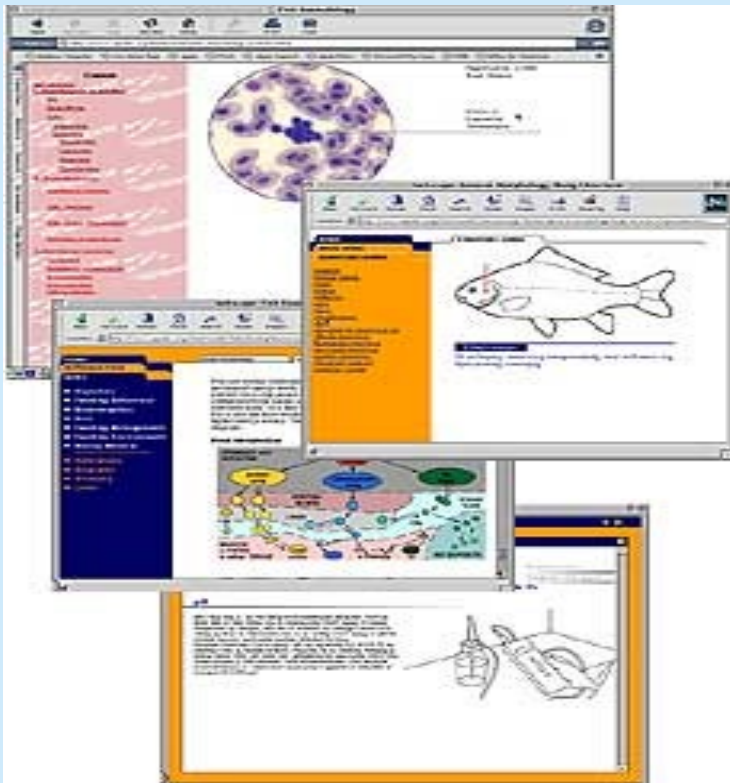
Conseil national
de recherches Canada

Canada

Overview

- *Where We Are Now*
- *Trends*
- *E-Learning 2.0*
- *Into the Future*

Online Courses



- Distance Learning
- Course Packages
- ‘Page turners’
- Course Authoring

<http://cnx.rice.edu/content/col10208/latest/>

<http://ocw.mit.edu/index.html>

http://www.traincaster.com/products_bui.shtml

http://www.hcmr.gr/english_site/services/multimedia/courses.html

Learning Management Systems



<http://www.traincaster.com/products.shtml>

- Standardized Design
- Enterprise system

<http://www.webct.com> - WebCT

<http://www.blackboard.com> - Blackboard

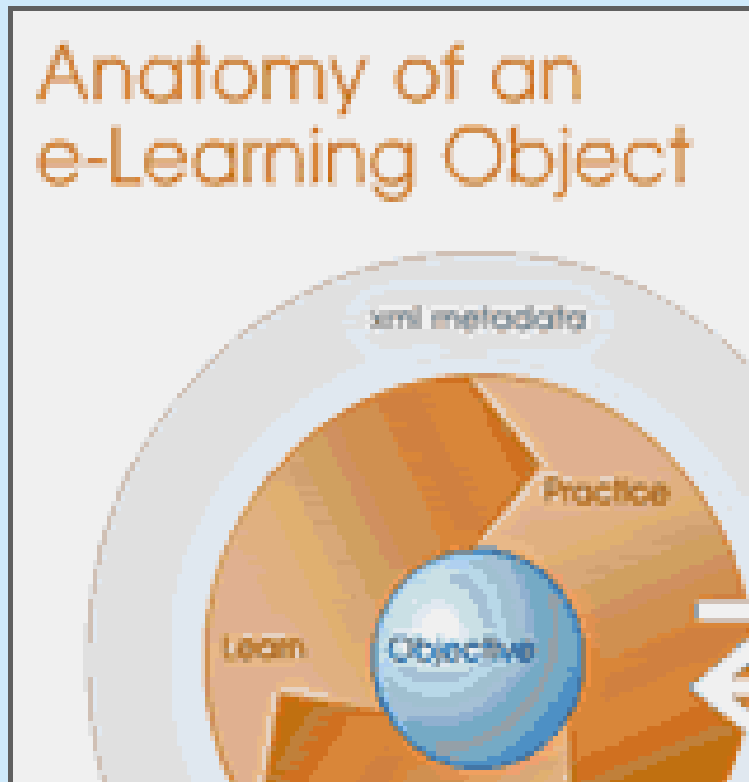
<http://www.desire2learn.com> –
Desire2Learn

(<http://d2ldemo.desire2learn.com/>)

Stephen.Downes D2L4me

Where We Are Now

Learning Objects



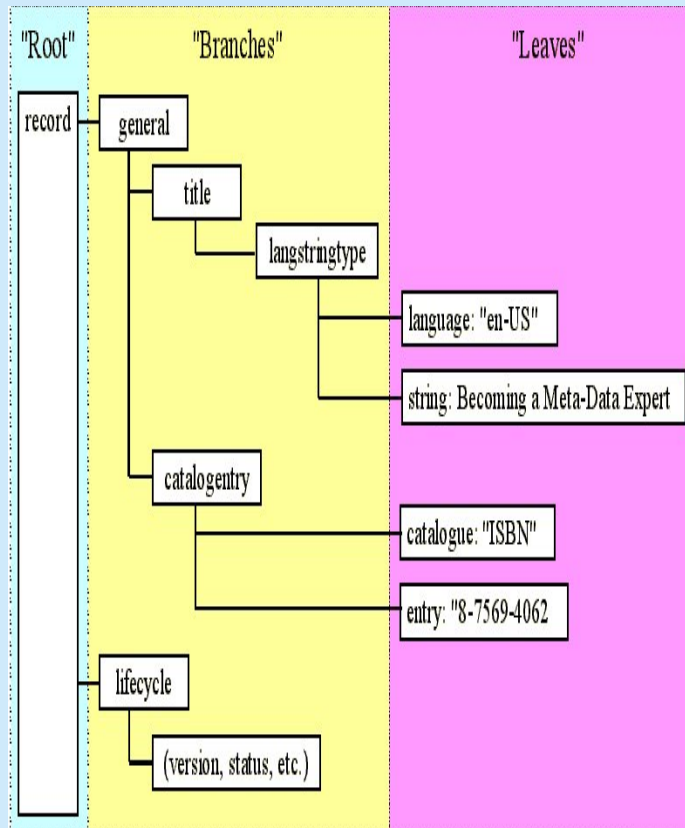
- Small chunks of digital learning content
- Reusable, Discoverable, Modular

<http://www.reusability.org/read/>
- Wiley

<http://www.irrodl.org/content/v2.1/downes.html> - Downes

<http://www.learnativity.com/standards.html> - Hodgins

IMS, Metadata and SCORM



- Metadata Standards

- Describe in XML

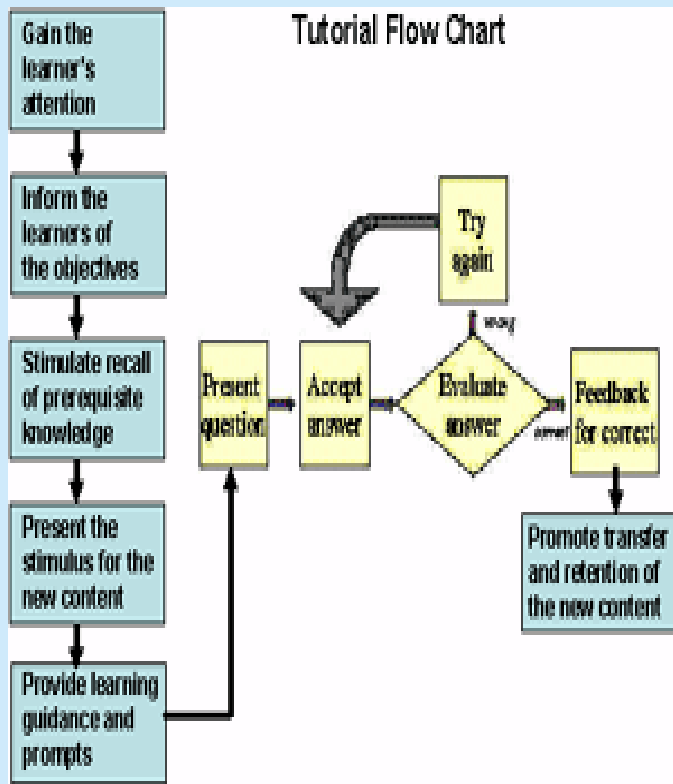
<http://www.imsglobal.org/> - IMS

<http://www.adlnet.org/> - SCORM

<http://ltsc.ieee.org/wg12/> - LOM

<http://www.cancore.ca> - CanCore

Learning Design and Beyond



- Describes learning flow

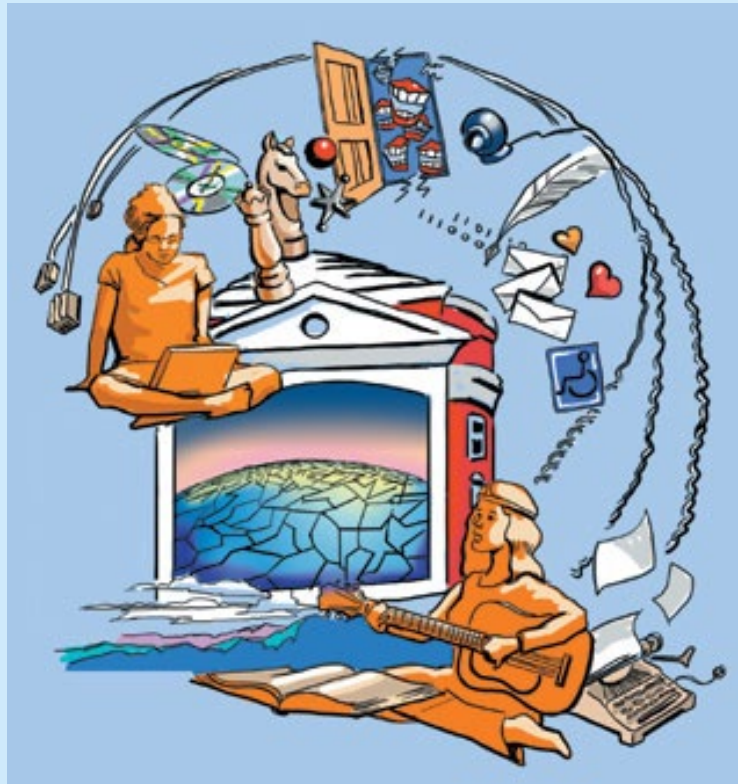
- Metaphor of a play

http://www.imsglobal.org/learning_design/ - IMS Learning Design

- Content Packaging

http://www.intrallect.com:8080/int_ralibrary_demo/

The Millennials



- Assume Technology
- Multitask / MultiInfo
- Twitch Speed
- Institutions Irrelevant

<http://www.abanet.org/lpm/lpt/articles/mgt08044.html> - ABANet

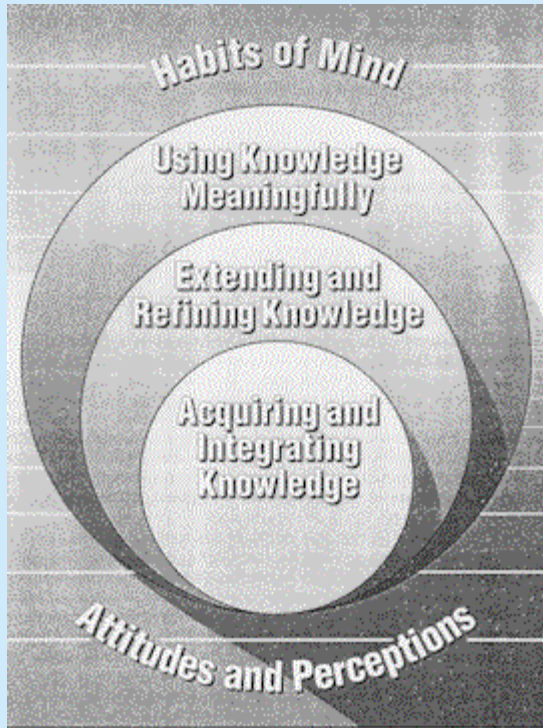
<http://www.educause.edu/educationthenetgen> - EDUCAUSE

Cluetrain



- Networked Markets
- Conversation
- Tear Down the Wall
- De-cloaking, getting personal

Learner Centered Design



- Autonomy - Choice
- Active Learning
- Interdependence between teacher and learner - power

http://www.aishe.org/readings/2005-1/oneill-mcmahon-Tues_19th_Oct_SCL.html - O'Neill and McMahon

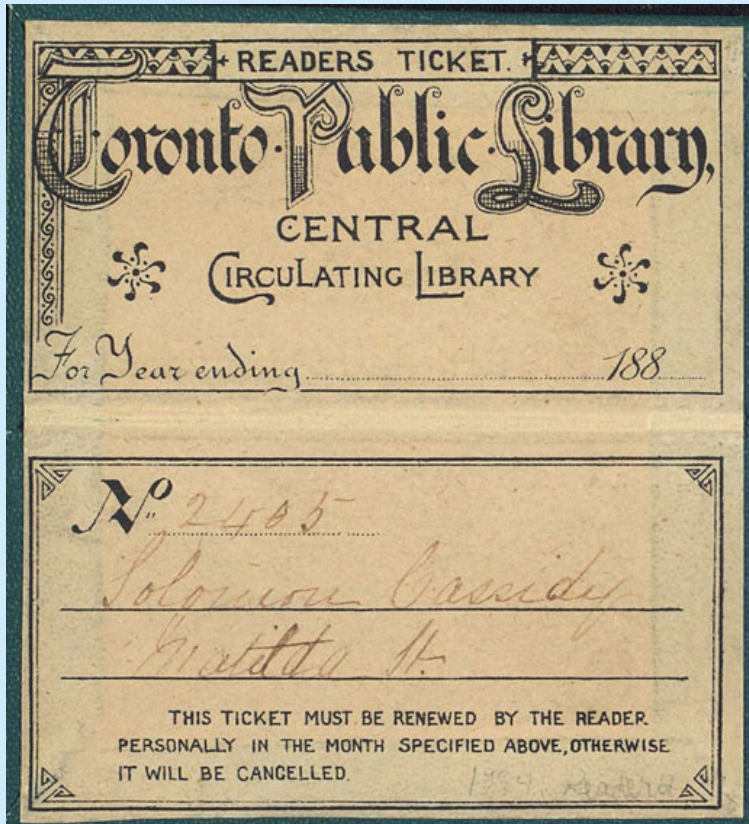
Connectivism



- Knowledge resides in a diversity of opinions
- Nurturing and maintaining connections
- Patterns, currency
- Decision-making as a learning process

<http://www.elearnspace.org/Articles/connectivism.htm> - Siemens

Open Access



http://www.tpl.toronto.on.ca/abo_his_index.jsp

- The Copyright Debate
- Napster, file-sharing
- Open source, open content

<http://creativecommons.org/> -
Creative Commons

<http://www.soros.org/openaccess/>
- BOAI

<http://www.downes.ca/cgi-bin/website/view.cgi?dbs=Article&key=1041806822>

<http://www.downes.ca/dwiki/?id=Reusable+Media%2C+Social+Software+and+Openness+in+Education>

The Open Society



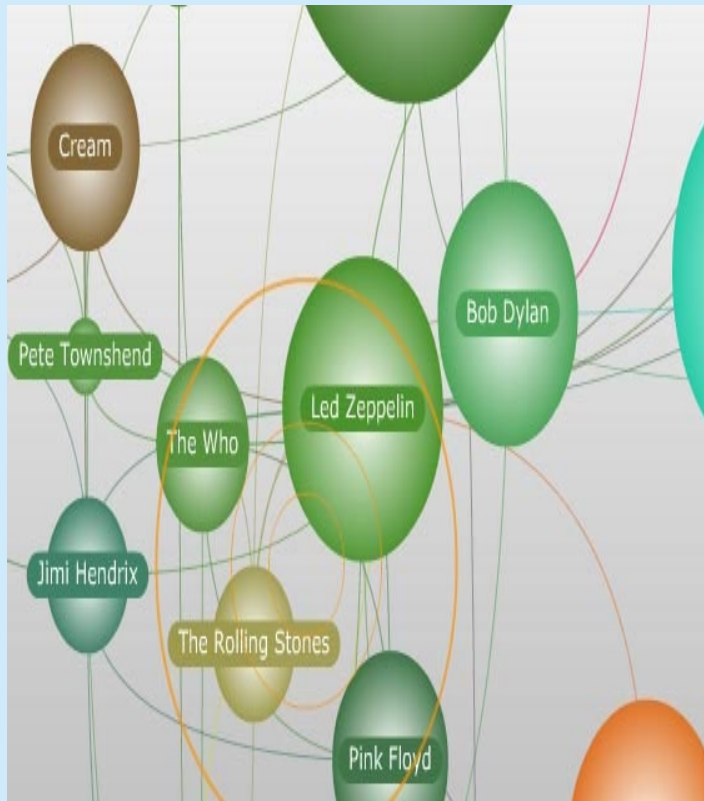
- Transparency
- Accountability
- Partnerships

<http://www.nplc.com/> - Tapscott

<http://edit.mougayar.com/OpenCorporation> - Mougayar

http://smartpei.typepad.com/robert_patersons_weblog/2005/02/going_home_our_.html - Paterson

The Web 2.0



- The Interactive Web
- Social networks, power laws

http://www.digital-web.com/articles/web_2_for_designers/ - MacManus and Porter

http://www.shirky.com/writings/powerlaw_weblog.html - Shirkey

<http://www.downes.ca/cgi-bin/website/view.cgi?dbs=Article&key=1109302318> - Downes

The Blog



- User generated Content
- Personal, opinionated
- Network of interactions
- Blogs and learning

<http://www.educause.edu/pub/er/erm04/erm0450.asp> - Downes

<http://www.blogger.com> –
Blogger

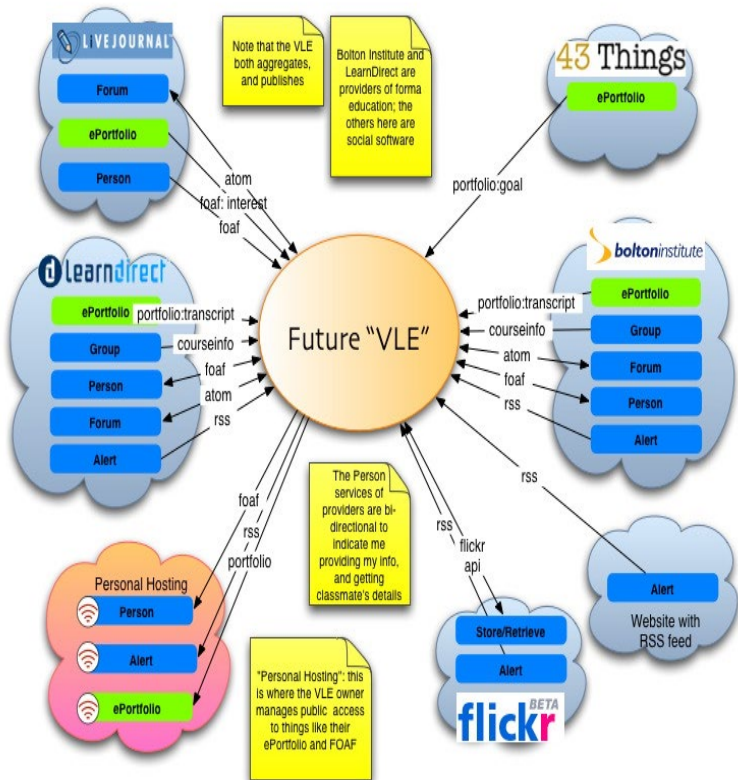
<http://www.livejournal.com> –
LiveJournal

Personal Learning

- A web of content
- The personal learning centre

<http://www.cetis.ac.uk/members/scott/blogview?entry=20050125170206> - Wilson

<http://elgg.net/> - ELGG



Podcasts, Screencasts and Beyond



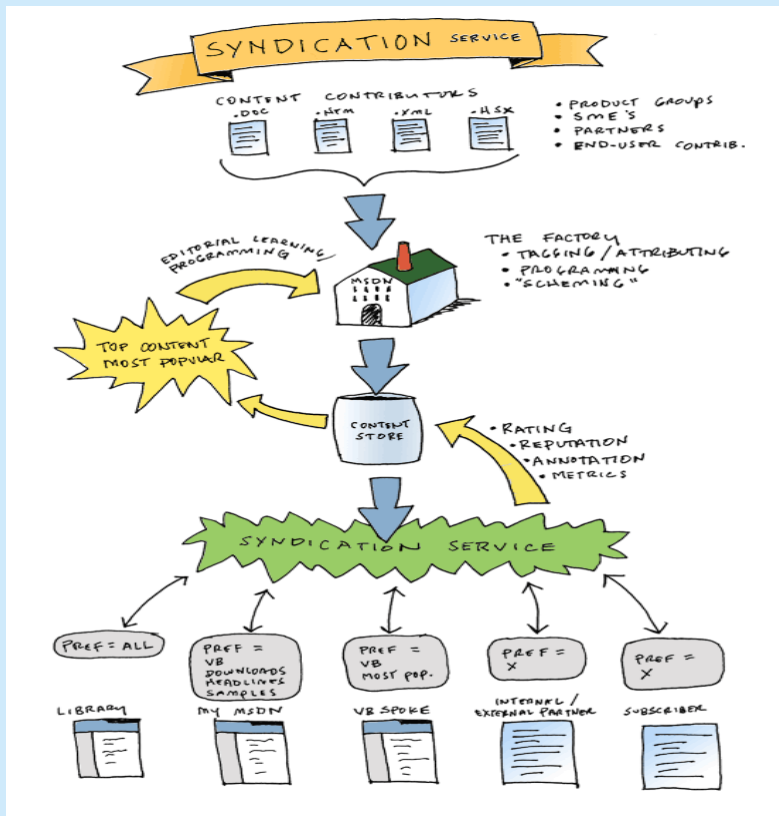
- User generated multimedia

<http://www.ipodder.org/> - iPodder

<http://www.flickr.com> – Flickr

<http://en.wikipedia.org> –
Wikipedia

Content Syndication



- XML generation and aggregation

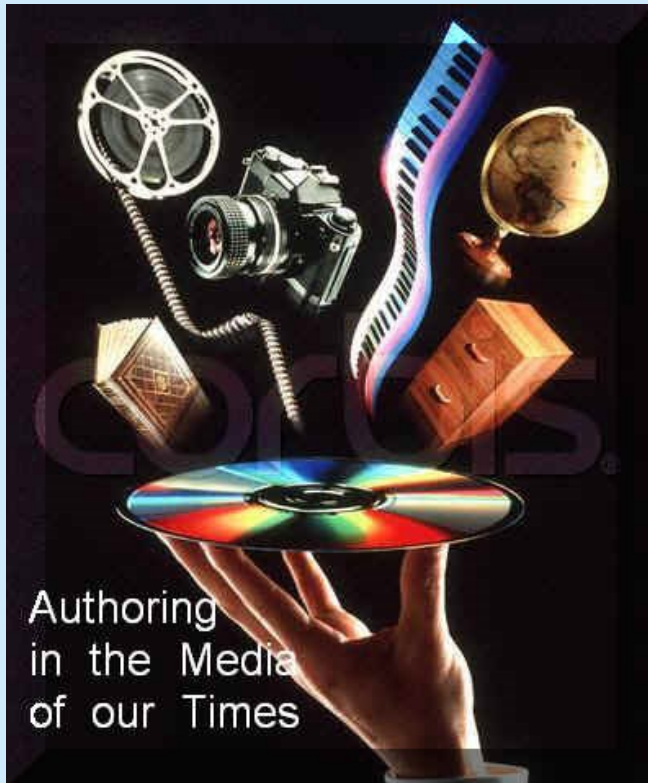
<http://www.google.ca/search?q=downes+rss> – Downes

<http://www.technorati.com> – Technorati

<http://www.blogdex.net> – Blogdex

<http://www.bloglines.com> – Bloglines

E-Portfolios

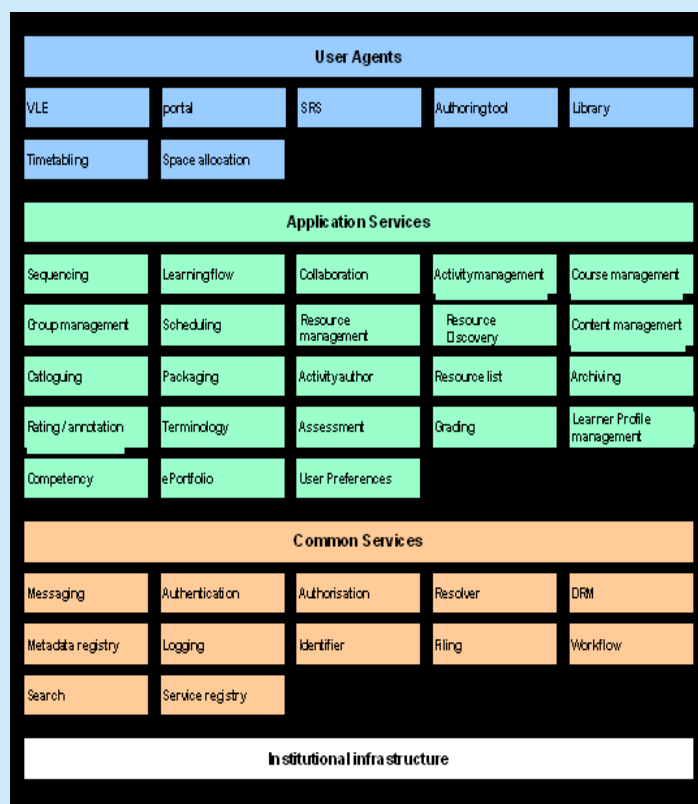


- Space for personally created content
- May be used for evaluation purposes as well

<http://www.eradc.org/> – ERADC

<http://eport2.cgc.maricopa.edu/> –
Chandler-Gilbert at Maricopa

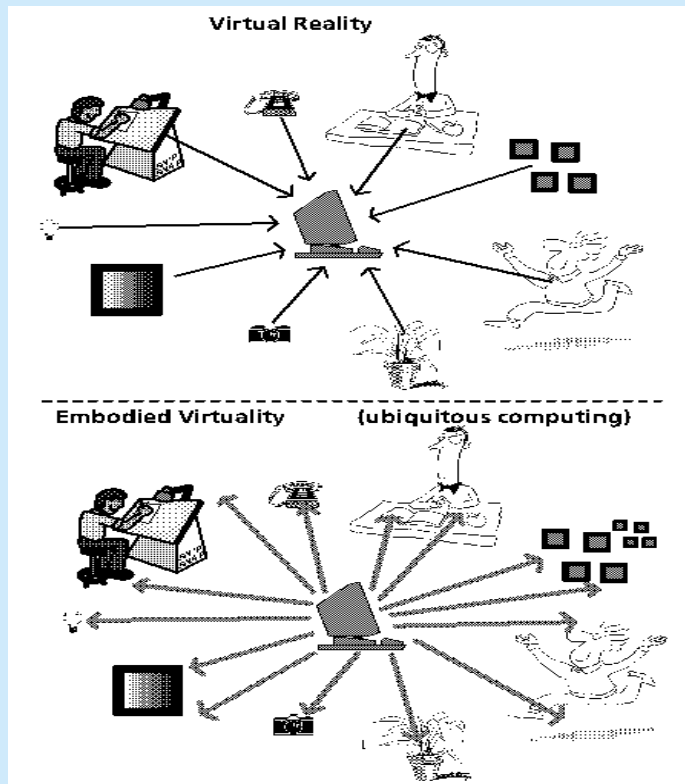
E-Learning Framework



- Array of common processes and services

<http://www.elframework.org/framework/> – JISC

Ubiquitous Computing



- One person – many computers

<http://www.ubiq.com/hypertext/weiser/UbiHome.html> – Weiser

Games and Simulations



- Interactive environment
- “Hard fun”

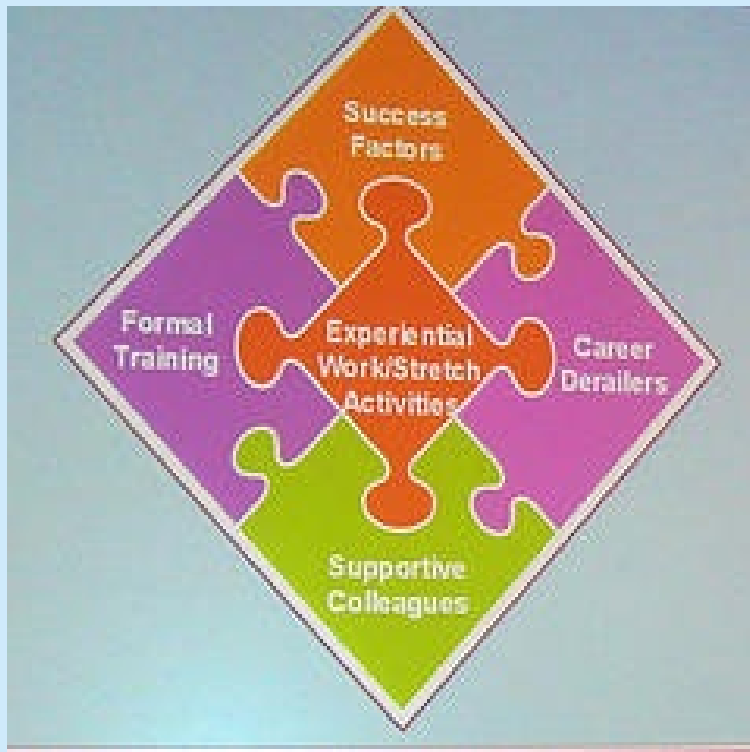
[http://www.papert.org/articles/Doeseasyd
oit.html](http://www.papert.org/articles/Doeseasyd
oit.html) – Papert

[http://www.downes.ca/cgi-
bin/website/view.cgi?dbs=Article&key=107938514
8](http://www.downes.ca/cgi-
bin/website/view.cgi?dbs=Article&key=107938514
8) – Gee

[http://www.downes.ca/cgi-
bin/website/view.cgi?dbs=Article&key=111627437
5](http://www.downes.ca/cgi-
bin/website/view.cgi?dbs=Article&key=111627437
5) - Aldrich

<http://muve.gse.harvard.edu/muvees2003/index.html>

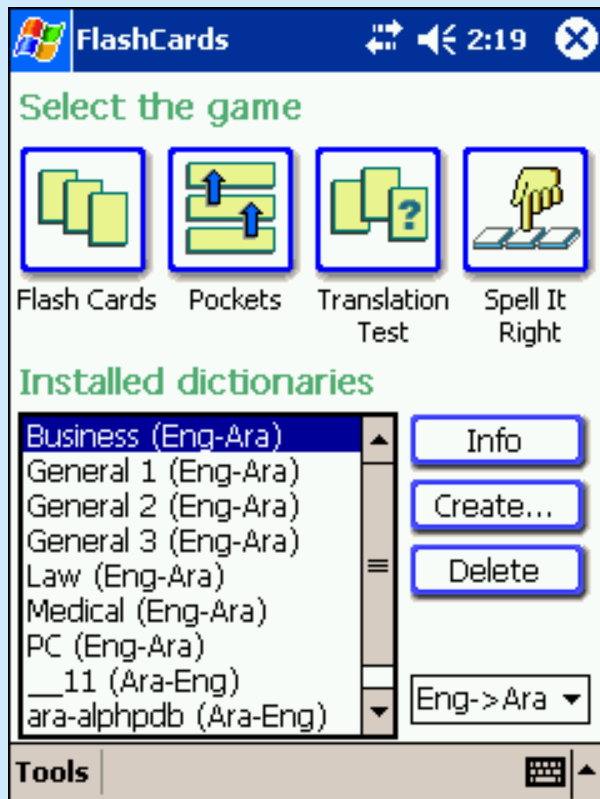
Workflow Learning



- Learning embedded in work processes

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

Mobile Learning



- Learning that travels with you

<http://www.educause.edu/apps/er/erm05/erm0532.asp> - Wagner

<http://ferl.becta.org.uk/display.cfm?page=65&catid=192&resid=5194&printable=1> – Wood



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