


# Open Educational Resources And The Personal Learning Environment

Stephen Downes

June 11, 2007

# What is an Open Educational Resource?

at a minimum,  
no cost to the  
consumer or  
user of the  
resource

- 
- fees
  - subscriptions
  - tuitions
  - registrations
  - obligations
  - etc.

# OER



Conditions?

Attribution

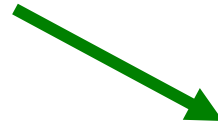
Share-Alike

Non-commercial

No-modify

Educational

Other?



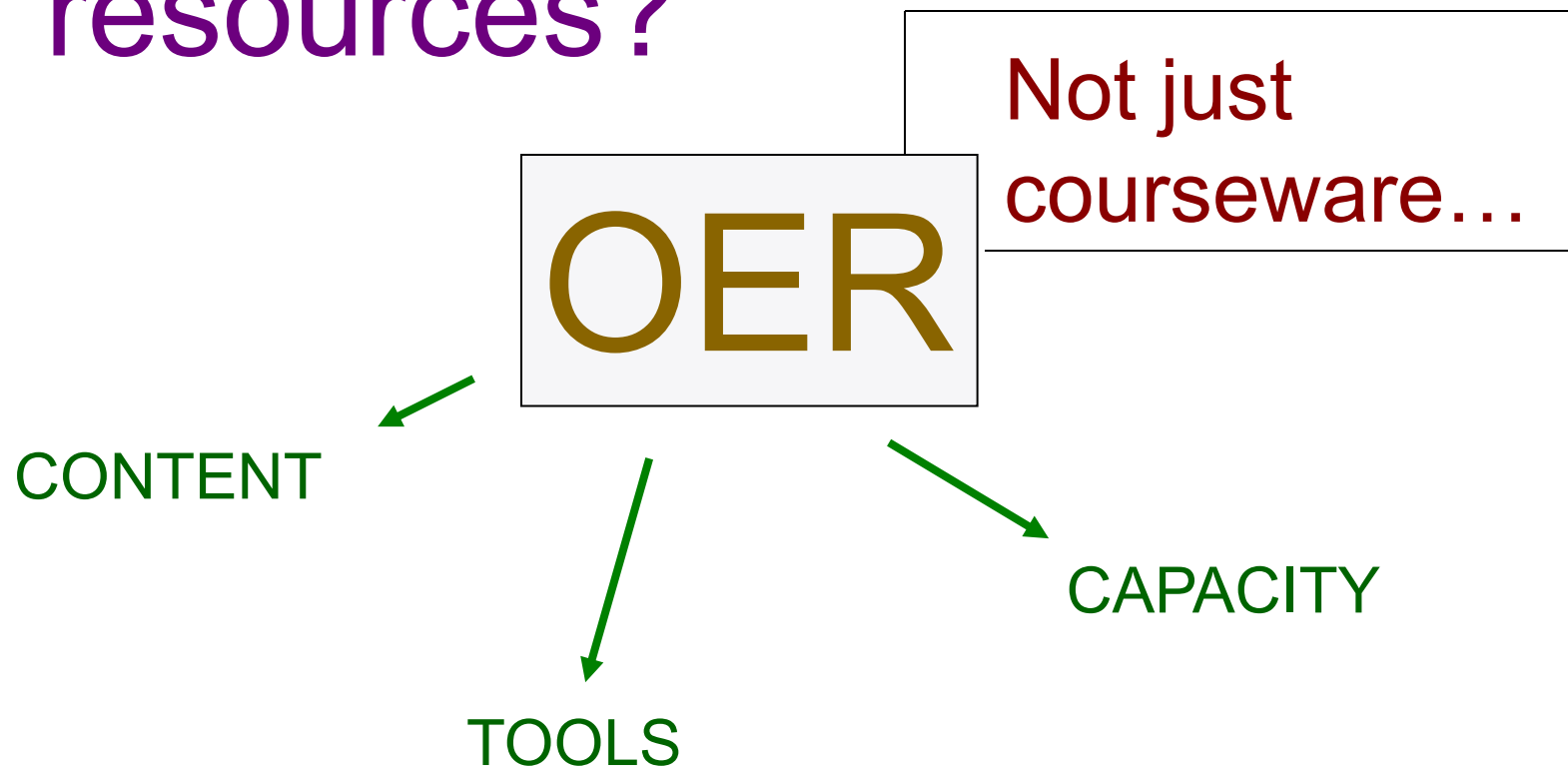
## Freedom to

- access
- copy
- modify
- redistribute

Footnote 2005, Doyle 2005

Matter more in conditions of scarcity, not abundance

# What resources?



# Sustainability

- Costs exist and may be significant
- Sustainability is measured from *provider* perspective... but providers vary
  - are there models for *cheaper* providers?

# More than just cost...

we need to consider:

- usability
- durability
- accessibility
- effectiveness

-Alternate objective: free as in freedom

# Staffing

## Traditional Model

hiring of professional staff  
to design and produce OERs

Question of cost, use of volunteers

(This raises the question of motives  
and again changes 'sustainable')

Non-financial incentives?

# Volunteer Organizations

Community model – emphasis on individual members (eg. OSS)

-Emergent model – emphasis on process (eg., Slashdot, eBay)

-Producer-consumer model vs co-producer model – Web 2.0



# Content Models

The type of content produced is heavily influenced by the funder

- universities produce courses
- governments produce institutions
- publishers produce books, journals

What would the recipients produce?

# Content Models

‘Sustainable’ often means ‘localizable’  
and tantamount to ‘reusable’

so people can meet their own needs

What you produce might not mean the  
same thing to the people reading it....

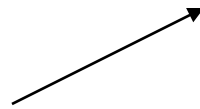
Not merely an issue of culture - also  
one of semantics

# Rethinking the Provider / Consumer relationship

- Content may reflect values of the provider
- cultural imperialism

We need to think of OERs from  
the perspective of the user...  
and the user's community

Not just a needs assessment



Because you  
always find  
what you're  
looking for

-Traditional – design, use, evaluation

Quality: peer review? MERLOT

-Rethink the idea of ‘producing’

-Decentralize, disaggregate

*The ‘use’ of a resource constitutes  
the ‘production’ of a new resource*

We need not just a mechanism but  
*a model* of production, use, distribution

## Existing structures

- centralized management, funding
- hierarchical, 'outcomes'

are often *barriers* to OERs - we feel this in  
our communities

OECD Report...

## 'Giving Knowledge for Free' ....?

So long as we think of OERs as charity...  
as something we create  
and that we *give* to the indigent  
OERs will never be sustainable

# The new model

- Adobe: “we want to be the toolmaker”
- Google: GEAR, open source tools

OERs today are about giving  
people the means to create

And then stepping out of the way

Flickr Facebook YouTube Blogger MySpace Yahoo-Groups Rev  
Writely Wikipedia LiveJournal WordPress Drupal PHP



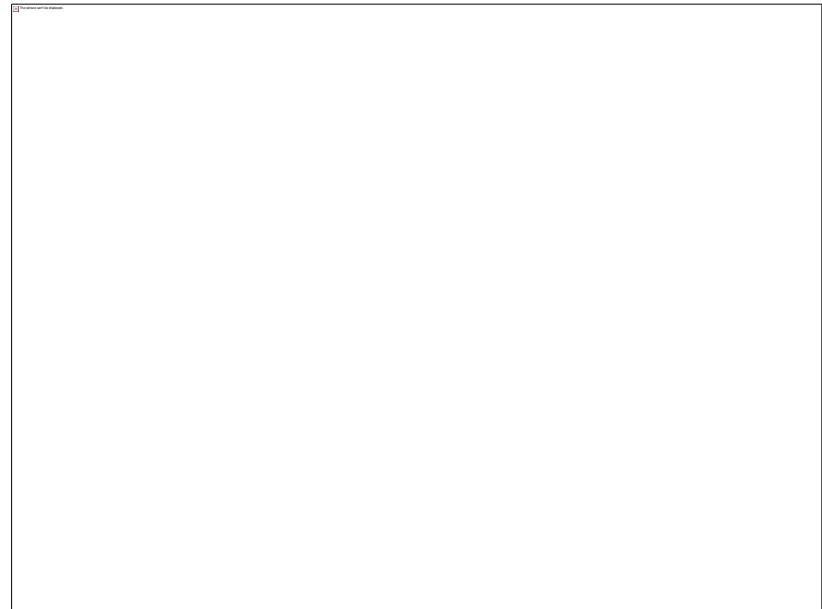
# The new tools



## E-Learning 2.0

Insofar as there is content, it is used rather than read—and is, in any case, more likely to be produced by students than courseware authors. And insofar as there is structure, it is more likely to resemble a language or a conversation rather than a book or a manual.”

<http://elearnmag.org/subpage.cfm?section=articles&article=29-1>



# Content Creation

- Blogs
- E-Portfolios – [ELGG](#)
  - [ePortfolios](#) – Helen Barrett
  - [ELGG and blogging](#) – Miles Berry

(a good way of promoting learner autonomy and voice)
- Video - [YouTube](#)

# Collaborative Writing

- Wikis – [PB Wiki](#), [Media Wiki](#)
  - [RSS inside a Wiki](#) – Alan Levine
  - [South African Curriculum](#) on a wiki
  - [OOPS](#)
- Collaborative Bookmarking – [del.icio.us](#), [Furl](#)
- Online Office Applications – [Writely](#), [Gliffy](#), [iRows](#)

# Aggregators

- [Aggregate This](#), Scott McLemee
- [MetaxuCafe](#) is "a network of literary blogs with over 300 members."
- [Postgenomic](#), aggregates "posts from life science blogs."
- [Edu\\_RSS](#)
- [Intute](#) - the new face of the Resource Discovery Network (RDN)
- Yahoo Pipes

# Webtops and Social Networks

- [30Boxes](#), [PageFlakes](#), [ProtoPage](#), [Goowy](#)
  - [Interfaces of the future](#) – Mark Oehlert
- [Facebook](#) as platform
- [Windows Live](#)

# Learning Networks

- Ton Zylstra: successful social software: Flickr and delicious work in a triangle: person, picture/bookmark, and tag(s).
- Jyri Engesrom: about social objects: social networks consist of people who are connected by a shared object.
- Downes: Social networking becomes a semantic social network when we can determine how A and B are connected.

# From LMS to PLE

Personal Learning Environments are systems that help learners take control of and manage their own learning.

[PLE Blog](#)



# The PLE...

Provides support for learners to:

- \* set their own learning goals
- \* manage their learning; managing both content and process
- \* communicate with others in the process of learning and thereby achieve learning goals.”

[http://octette.cs.man.ac.uk/jitt/index.php/Personal\\_Learning\\_Environments](http://octette.cs.man.ac.uk/jitt/index.php/Personal_Learning_Environments)

# The PLE: An approach, not an application

The evolution of read/write applications

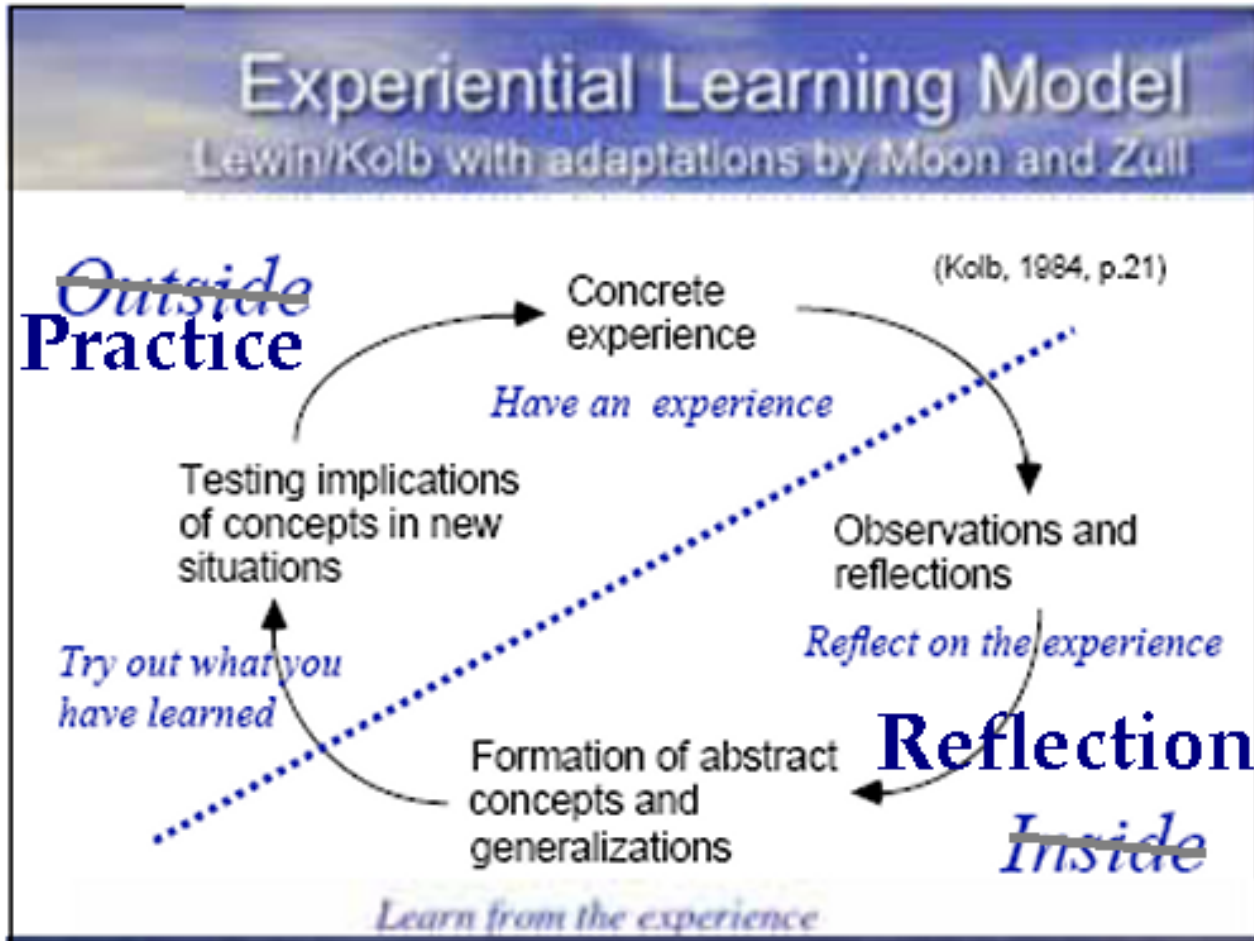
Similar to Web 2.0 applications

Similar also to Windows Vista

The students' application need not be a learning application

Eg. More like an email client than a learning client

# Rooted in how we learn



[Helen Barrett](#), [Stephen Downes](#)

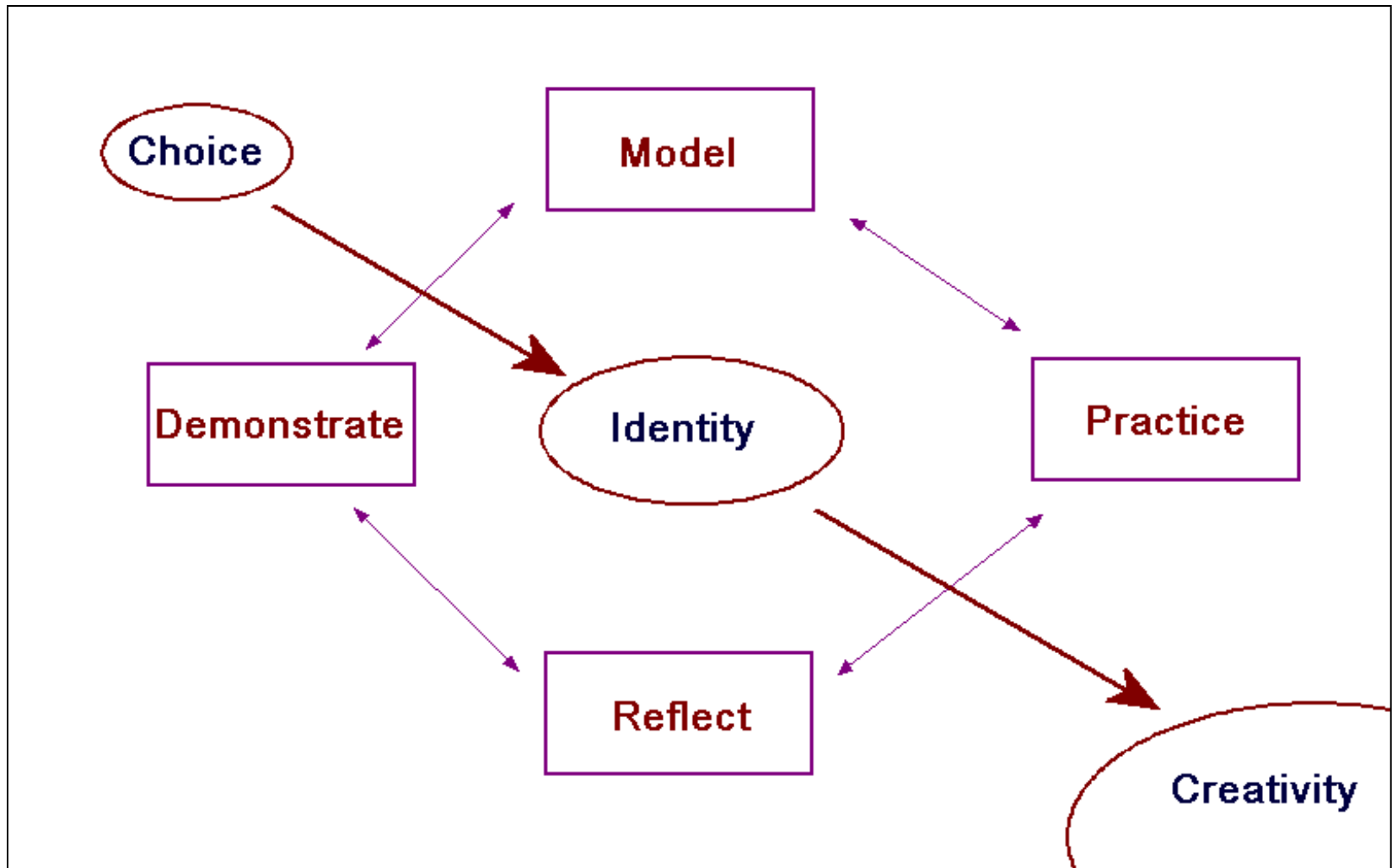
Leads to this...

Personal Learning...

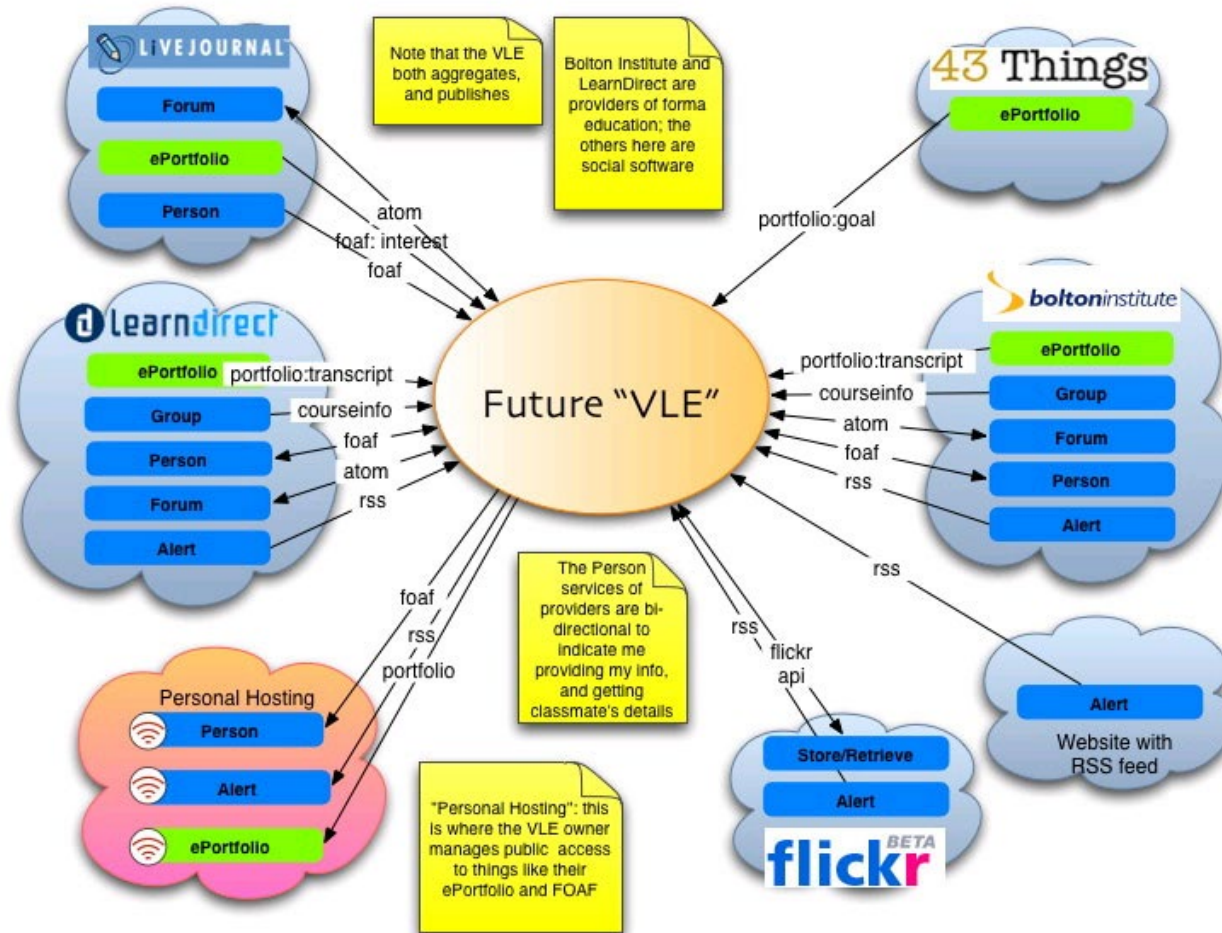
To *teach* is to *model* and to *demonstrate*  
To *learn* is to *practice* and *reflect*



# What is the PLE?



# The classic diagram



Scott Wilson.

[http://octette.cs.man.ac.uk/jitt/images/b/ba/Wilson\\_future\\_PLE.jpg](http://octette.cs.man.ac.uk/jitt/images/b/ba/Wilson_future_PLE.jpg)



# Plex Personal Learning Environment Example

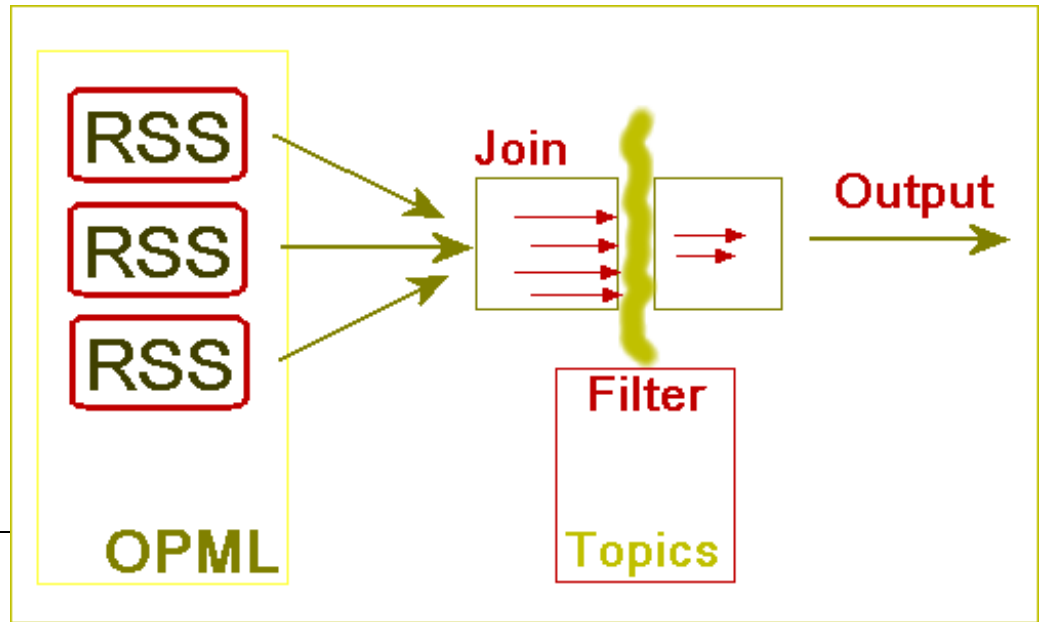
The screenshot displays the Plex interface with several components:

- Opportunities Explorer:** A tree view showing a hierarchy of opportunities: 'Free' (parent), 'Match' (child), and 'learn three chord rock guitar' (grandchild, highlighted).
- Opportunity Viewer:** A detailed view of the selected opportunity. It shows:
  - Title:** learn three chord rock guitar
  - Number of registered people:** 1
  - Provider:** 43 Things
  - Location:** <http://www.43things.com/thing:>
- Search Results:** A list of search results for the query 'learn three chord rock guitar'. The results are filtered by '43 Things' and listed with their titles and locations (all pointing to http://www.43things.com).

Title	Provider	Location
Leran to play the guitar like no one has ev...	43 Things	http://www.43things.com/thing/161919
learn to play acoustic guitar, also get a gu...	43 Things	http://www.43things.com/thing/161919
Learn to play the guitar guitar properly an...	43 Things	http://www.43things.com/thing/161919
meet Mcfly and just chill out with them an...	43 Things	http://www.43things.com/thing/161919
Create a music room downstairs, with a dr...	43 Things	http://www.43things.com/thing/161919
i want to keep playing guitar and play infr...	43 Things	http://www.43things.com/thing/161919
i want to learn to play the guitar and then...	43 Things	http://www.43things.com/thing/161919
Sing and play bass guitar at the same tim...	43 Things	http://www.43things.com/thing/161919
- Web Browser:** A browser window showing the details of the selected opportunity on the 43 Things website. The address bar shows <http://www.43things.com/things/view/161919>. The page content includes a search bar and a green banner that says "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)



# My Own Approach (2): RSS Writr

The screenshot shows a web browser window with the title "Stephen's Web". The page has a dark brown header with a search box and a "Start Search" button. Below the header, there are navigation links: [OLDaily] [Archives] [Threads] [Best Of] [Search] [Options].

The main content area is divided into two columns. The left column has a heading "Welcome to RSS Writr" and three paragraphs of text:

- 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.

The right column contains an editing area with a "Title:" input field, a toolbar with icons for Bold (B), Underline (U), Italic (I), Bulleted List, Numbered List, Indent Left, Indent Right, Undo, and Redo. Below the toolbar is a large yellow text area containing the word "Hello".

Below the editing area is a section titled "Content Sources" with a dropdown menu labeled "Select an Entry".

<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

SOME RIGHTS RESERVED THIS WORK IS LICENSED UNDER A [Creative Commons License](#)

COPYRIGHT 2007 STEPHEN DOWNES  
CONTACT: [STEPHEN@DOWNES.CA](mailto:STEPHEN@DOWNES.CA)

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

# Edu\_RSS 0.2

Stephen's Web

[START SEARCH](#)

[\[NEWS\]](#) [\[DISCUSS\]](#) [\[SEARCH\]](#) [\[ABOUT\]](#) [\[ARCHIVES\]](#) [\[OPTIONS\]](#)

---

## *Site Administration*

[\[ADMIN\]](#)

[\[New\]](#) [\[List\]](#) [Author](#)  
[\[New\]](#) [\[List\]](#) [Box](#)  
[\[New\]](#) [\[List\]](#) [Event](#)  
[\[New\]](#) [\[List\]](#) [Feed](#)  
[\[New\]](#) [\[List\]](#) [File](#)  
[\[New\]](#) [\[List\]](#) [Journal](#)  
[\[New\]](#) [\[List\]](#) [Link](#)  
[\[New\]](#) [\[List\]](#) [Page](#)  
[\[New\]](#) [\[List\]](#) [Person](#)  
[\[New\]](#) [\[List\]](#) [Post](#)  
[\[New\]](#) [\[List\]](#) [Publication](#)  
[\[New\]](#) [\[List\]](#) [Template](#)  
[\[New\]](#) [\[List\]](#) [Theme](#)  
[\[New\]](#) [\[List\]](#) [Topic](#)  
[\[New\]](#) [\[List\]](#) [View](#)

## *Mailing List*

- [Test Newsletter \(Sends to Admin Only\)...](#) [Send Newsletter](#)

## *Harvester*

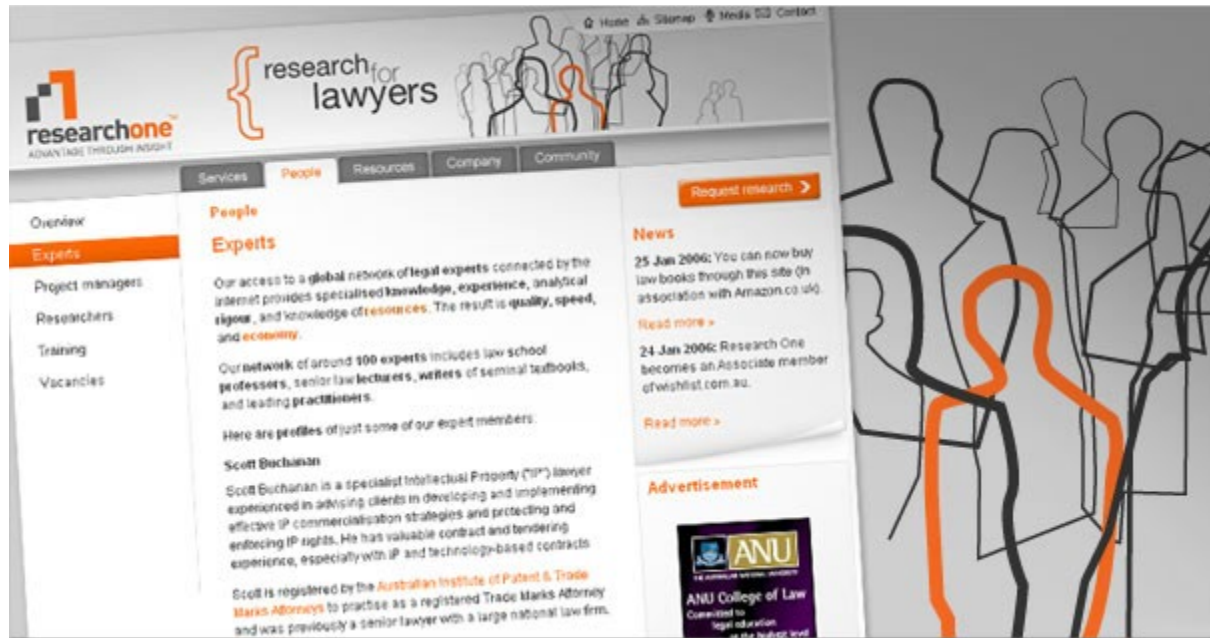
- [Harvest Next In Queue](#)
- [Harvest All Feeds](#)
- [Calculate Most Cited](#)

## *Harvest Results*

- [Most Recent in EduRSS \(RSS Version\)](#)
- [Look at the files: HTML, XML, RSS](#)

<http://www.downes.ca/edurss02.htm>

# The Problem...



## How to find the *right* resource...

- at the right time
- for the right person

# The old way – use descriptions

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

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

- Dublin Core
- Learning Object Metadata

# Descriptions are (necessarily) incomplete



- many properties depend on context
- 'I know it when I see it'
- these relations are dynamic and change...
  - from person to person
  - from time to time

# Recommender Systems

The idea is that associations are mapped between:

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

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	

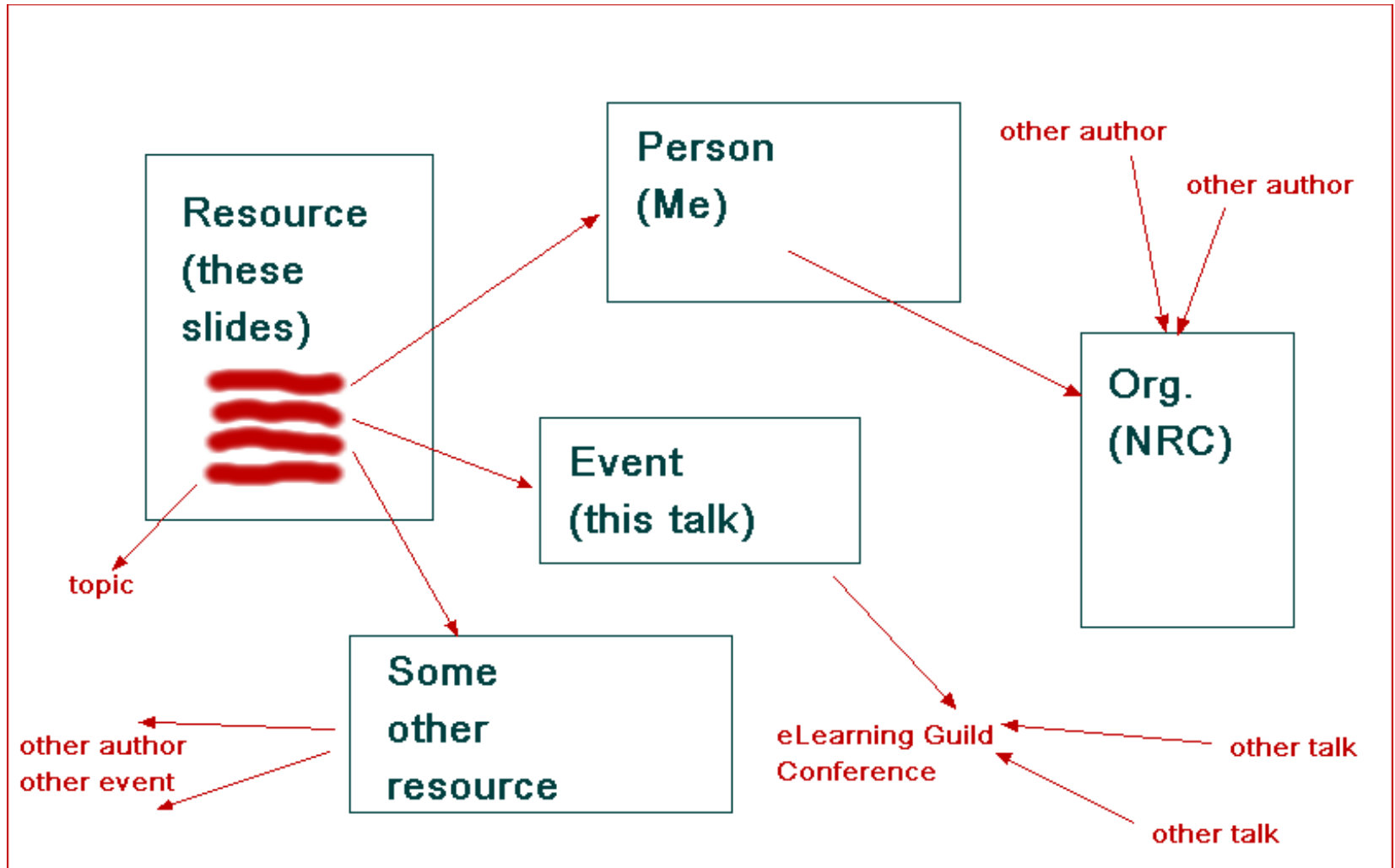
How social is she?

mostly shy & introverted    your ideal    mostly outgoing

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

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

# Relations between Entities...

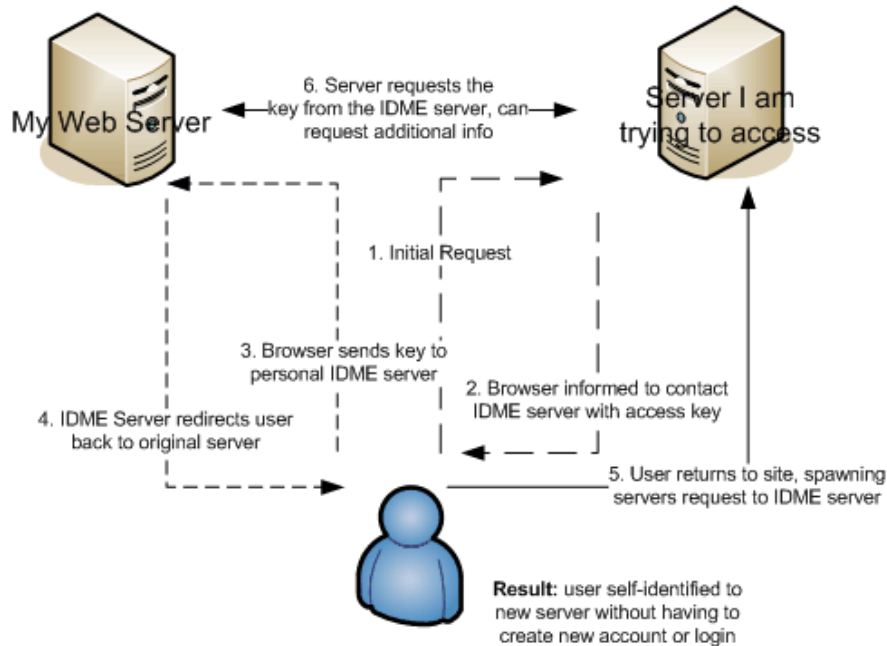




## Resource Profiles...

First Person	Second Person	Third Person
<ul style="list-style-type: none"><li>- Bibliographic</li><li>- Technical</li><li>- Rights</li></ul>	<ul style="list-style-type: none"><li>- Educational</li><li>- Sequence and Relational</li><li>- Interaction</li></ul>	<ul style="list-style-type: none"><li>- Evaluation</li><li>- Classification</li></ul>
<i>Created by the content author or publisher</i>	<i>Created by the content user (in the process of use)</i>	<i>Created by disinterested third parties</i>

# My Own Approach (3): mIDm




License plates

Telephone

ATM

<http://www.downes.ca/midm.htm>

# My Own Approach (4): DDRM

		eduSource LOM Tagger	
<b>Rights</b>			
Cost:	<input type="text"/>		
Copyright and Other Restrictions	<input type="text"/>		
Description	<input type="text" value="Free Giveaway"/>		
Select ODRL P or Create New OD	<ul style="list-style-type: none"><li>Free Giveaway</li><li>Demo 10 Views</li><li>Ten Dollar Special</li><li>Full Reuse</li><li>CC Attribute Share Alike</li></ul>		
Copyright National Research Council Canada 2004 - Stephen.Downes@nrc.gc.ca <a href="#">Licensing</a> <a href="#">Contributors</a>			

<http://www.downes.ca/dwiki/?id=DDRM>

