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*Institute for
Information
Technology*

On Being Radical

**Stephen Downes
National Research Council Canada
November 18, 2005**



National Research
Council Canada

Conseil national
de recherches Canada

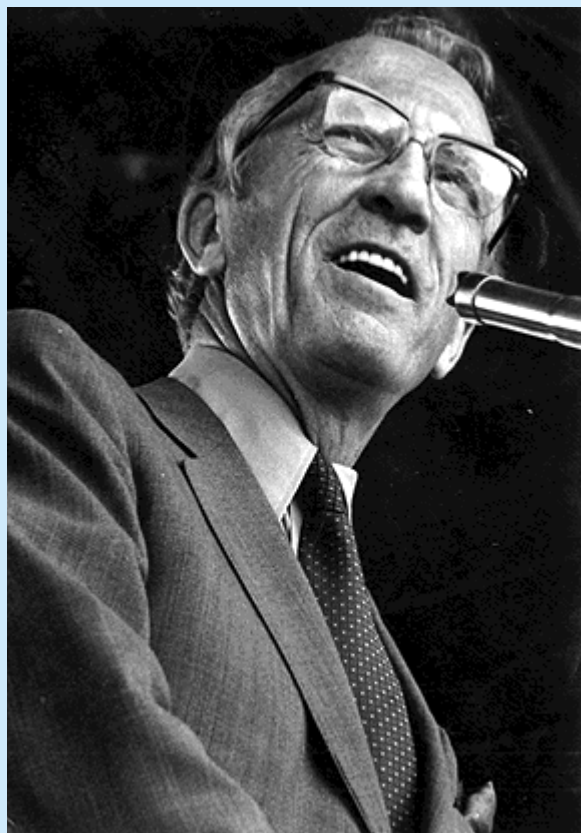
Canada

Two paths meet...



- **Two paths meet today... my path, which has taken me from my home... and your path, which has taken you from yours...**
- **How did that happen? Do we even stop to ask the question?**

What is Radical?



Tommy Douglas

- **Public Health Care**
- **Rural Electrification**
- **More...**

"a rather dangerous radical in the community of Weyburn, stirring up the unemployed to ask for more money and sticking my nose into places where it was none of my business."

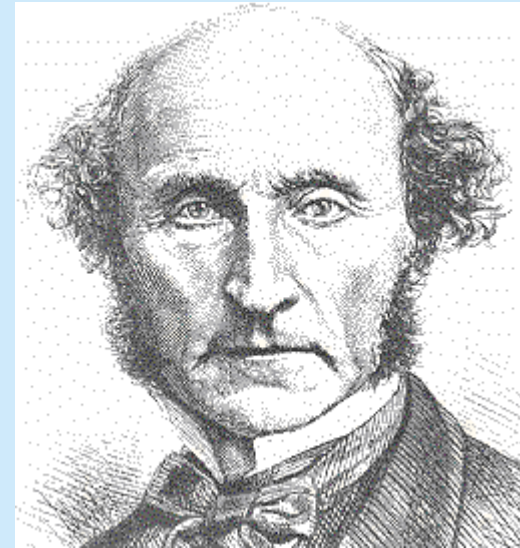
<http://www.weyburnreview.com/tommydouglas/welcome.html>

The Subjection of Women

John Stuart Mill (1869)

- “The principle which regulates the existing social relations between the two sexes — the legal subordination of one sex to the other — is wrong itself, and now one of the chief hindrances to human improvement “

<http://www.constitution.org/jsm/women.htm>



What is Radical? (2)



- **WSIS in Tunisia... global internet governance, access to all... yet...**
 - Bloggers and journalists are arrested
 - Photographs are banned
 - Soldiers on every street corner

<http://www.economist.com/sponsor/utica/>



<http://campaigns.ifex.org/tmg/>

Technology Changes Everything...



<http://home.flash.net/~bibleetc/press.jpg>

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Technology Changes Everything...



<http://club.guns.ru/images/convention/10.jpg>

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Technology Changes Everything...



<http://imagecache2.allposters.com/images/2/Posters/PO7029.jpg>

Technology Changes Everything...



Yesterday...

34,000 feet over Greenland



<http://www.downes.ca/photos/Palermo/22.htm>

What I Can Do...

- I can, with a click of a button, reach out and touch a life half way around the world...
- This is not theoretical – I *know* I can do this
- How did this happen?
- And what's next?



What is Radical? (3)

- **“...a system of society and learning where each person is able to rise to his or her fullest potential without social or financial encumbrance, where they may express themselves fully and without reservation through art, writing, athletics, invention, or even through their avocations or lifestyle...”**

Education: A Radical Idea...

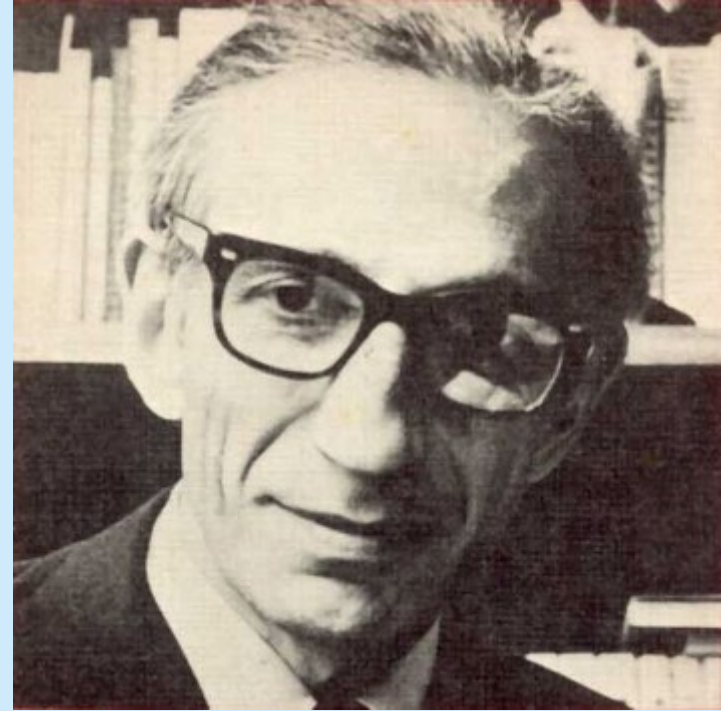
- **Mill (Principles of Political Economy, 1848)**
- **“An effective national education of the children of the labouring class, is the first thing needful...”**
- **“Education is incompatible with poverty...”**
- **“The grounds of hope are, that there has been no time in our history when mental progress has depended so little on governments, and so much on the general disposition of the people”**

<http://www.econlib.org/library/Mill/mIP26.html>

Ivan Illich

- “The current search for new educational *funnels* must be reversed into the search for their institutional inverse: educational *webs* which heighten the opportunity for each one to transform each moment of his living into one of learning, sharing, and caring.”

<http://www.ecotopia.com/webpress/deschooling.htm>



<http://www.tierversuchsgegner.org/Pharmakritik/ivan-illich-closeup.jpg>

Seymour Papert

- **“‘What grade are you in?’ is a natural question you ask a kid, or ‘What subject are you doing in third period?’ These are not intrinsic to the nature of creating a good learning environment. They are caused by a previous level of knowledge technology, where the only way we could give out knowledge was by a production-line method.”**

What is Radical? (4)

- **When new technology – the press, the gun, the computer – empowers a previously disenfranchised population, the ideas brought forward by that population are universally condemned as radical...**
- **Today, the computer is empowering society as a whole...**

The New Empowerment



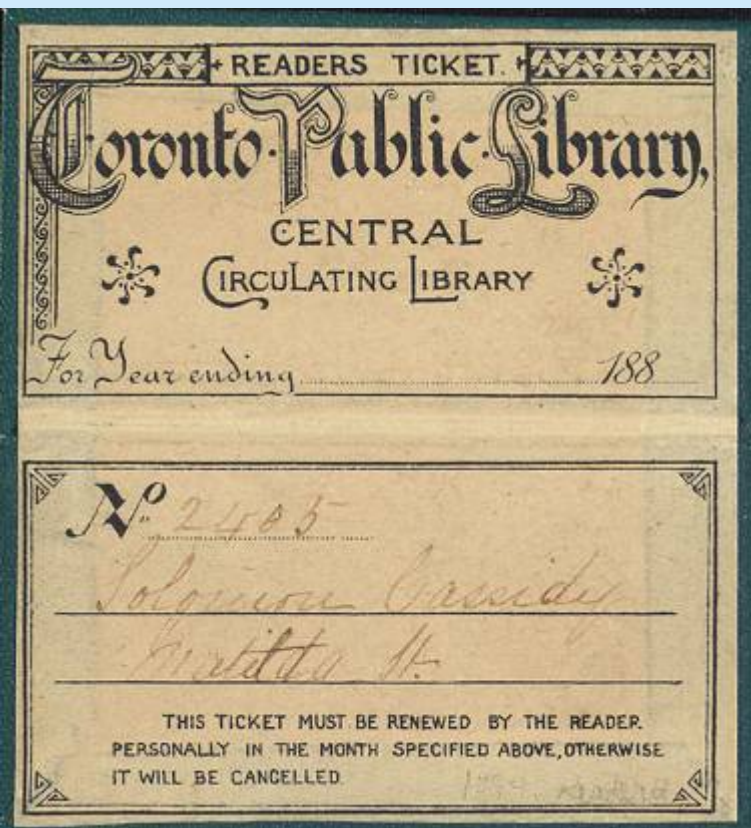
- *The millenials* – a generation that has become empowered
- *Cluetrain* – evolution from consumption to co-production
- *Learner centered design* – the interdependence between teacher and learner – a sharing of power

Empowering Technology



- The Interactive Web (Web 2.0)
 - Blogs, CMSs, Wikis
 - Podcasts, screencasts, video
 - Instant messaging, Skype
 - Wireless access, the mobile web
-
- This is *how* it happens...
 - Where do we go next?

Radical Ideas...



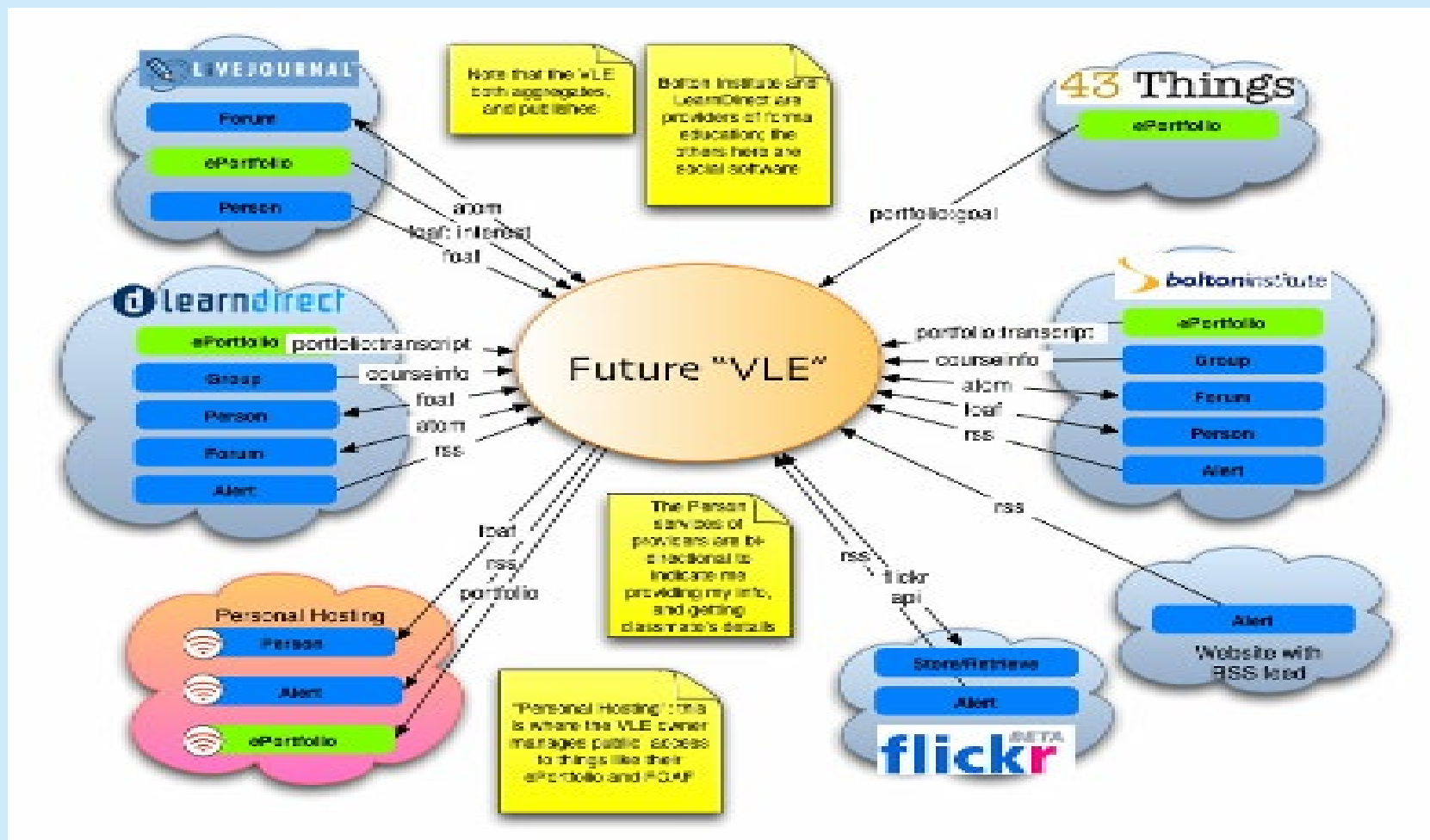
- **Connectivism** - knowledge resides in a diversity of opinions
<http://www.elearnspace.org/Articles/connectivism.htm>
- **Open Access** - file-sharing, open source, open content
<http://creativecommons.org/>
<http://www.soros.org/openaccess/>
- **The Open Society** – transparency, accountability, partnerships
<http://www.nplc.com/>

Learning...

Learning as a network phenomenon...

- **Web of user-generated content (eg. Wikipedia)...**
- **Social networks and communities (entails a genuinely portable (and *owned*) identity**
- **Networks of interactions (aggregate, remix, repurpose, feed forward) – syndication**
- **The *personal* learning centre**

E-Learning 2.0...



Radical Ideas...

Three Principles of Effective E-Learning:

- **Interaction** – participation in a learning community (aka a community of practice)
- **Usability** – simplicity and consistency
- **Relevance** – aka salience, that is, learning that is relevant to you, now

More on these...

Interaction

- “... the capacity to communicate with other people interested in the same topic or using the same online resource. “
- *Why do we want it?*
 - Human contact ... *talk to me...*
 - Human content ... *teach me...*

Interaction Guerillas

- **Interaction: Guerilla Tactics**
- **If interaction isn't provided, create it, blog it...**
- **If your software doesn't support interaction, add it (Javascript, RSS)**
- **Use back-channels, route around blocking – Gmail, Flickr, IM, more**

Usability

Usability:

- “... probably the greatest usability experts are found in the design labs of Google and Yahoo! “
- Elements of Usability
 - **Consistency** ... *I know what to expect...*
 - **Simplicity** ... *I can understand how it works...*

Usability Guerillas

- **Important**: your institutional CMS is almost certainly dysfunctional – create your own *distributed* knowledge management system...
 - Create a blog on Blogger, just to take notes
 - Store photos on Flickr
 - Create a GMail account and forward important emails to yourself (and take advantage of Google's search)
 - (Maybe) use Google desktop search, Google Base
<http://base.google.com>

Relevance

Relevance:

- “... learners should get what they want, when they want it, and where they want it “
- Generating Relevance
 - Content ... *getting what you want*
 - Location, location, location...

Relevance Guerillas

- **Develop unofficial channels of information (and disregard most of the official ones)**
- **Create ‘project pages’ on your wiki (you have a wiki, right?) with links to templates, forms, etc.**
- **Demand access**

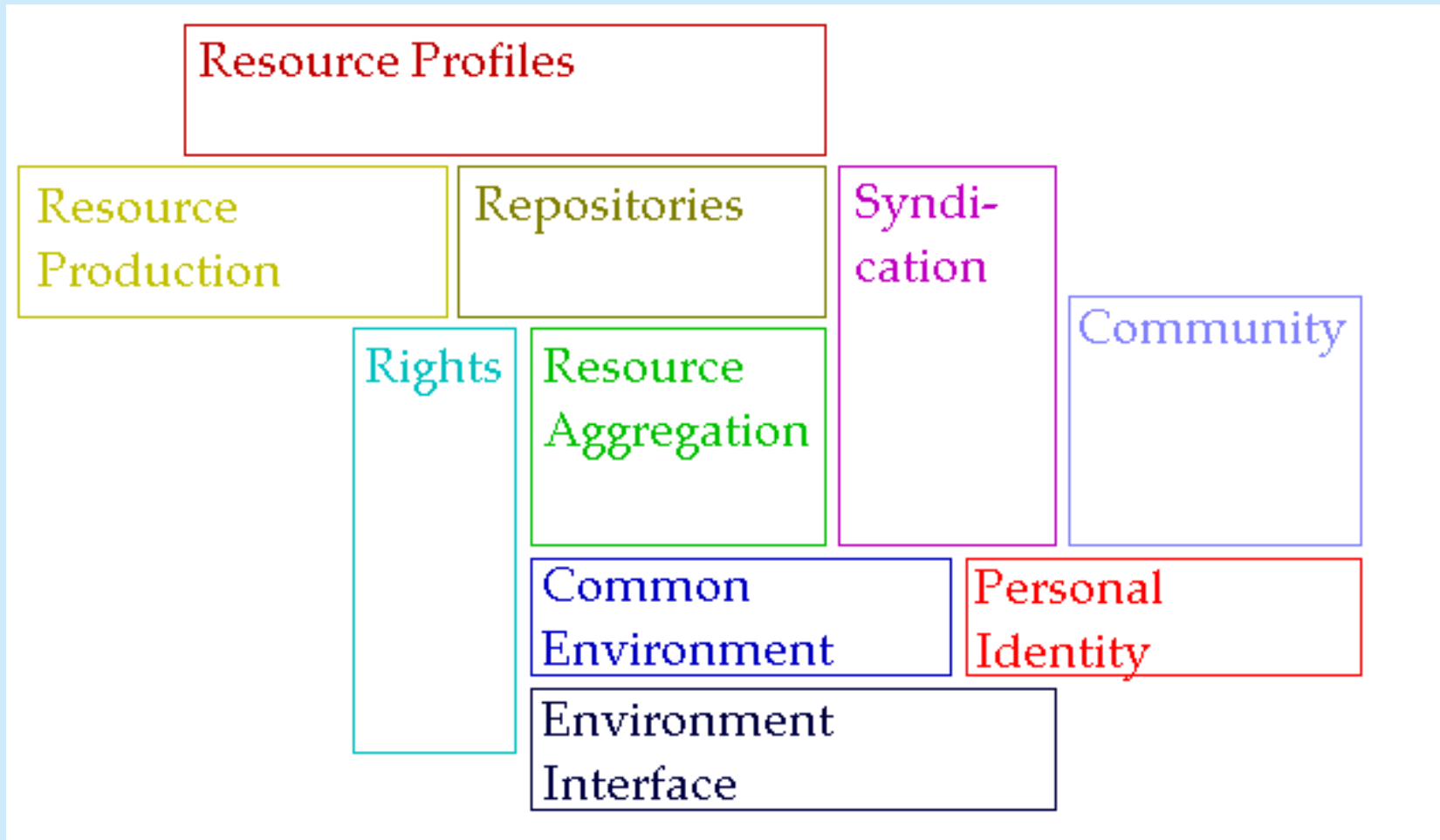
Properties of successful networks...

- **Charles Vest – three key attributes:**
 - **Diversity (many objectives)**
 - **Interwoven (many activities)**
 - **Open (many minds)**
- *Charles M. Vest, SAC, August 8, 2005*

<http://jade.mcli.dist.maricopa.edu/cdb/2005/08/08/opencourseware-sac2005>

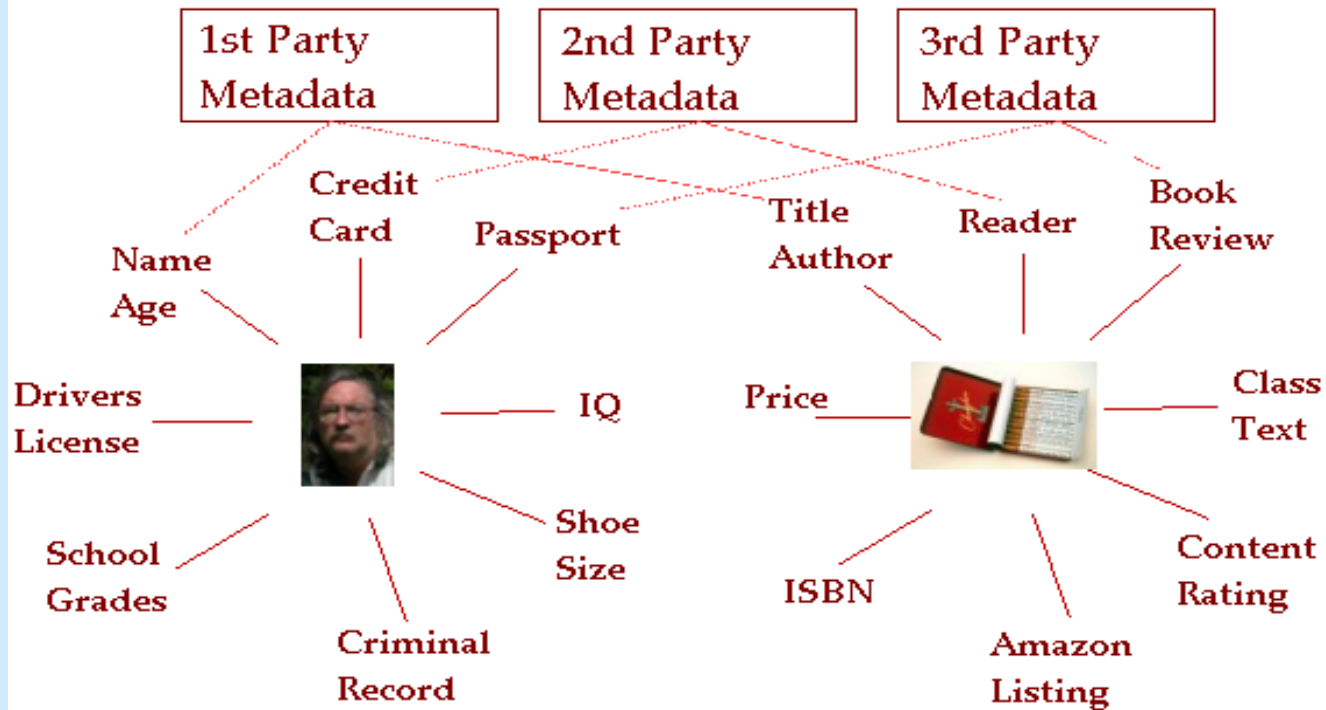
Metaversity

Rethinking what is radical...



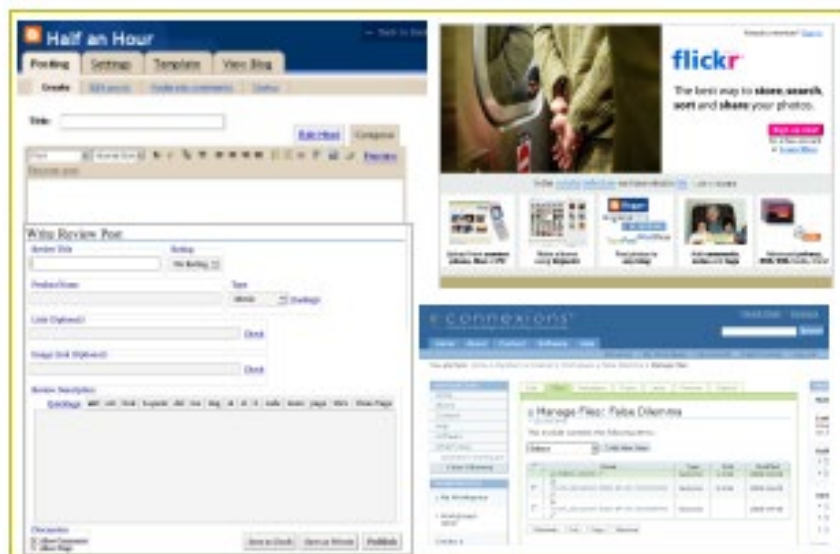
Resource Profiles

Resource Profiles



Resource Production

Resource Production



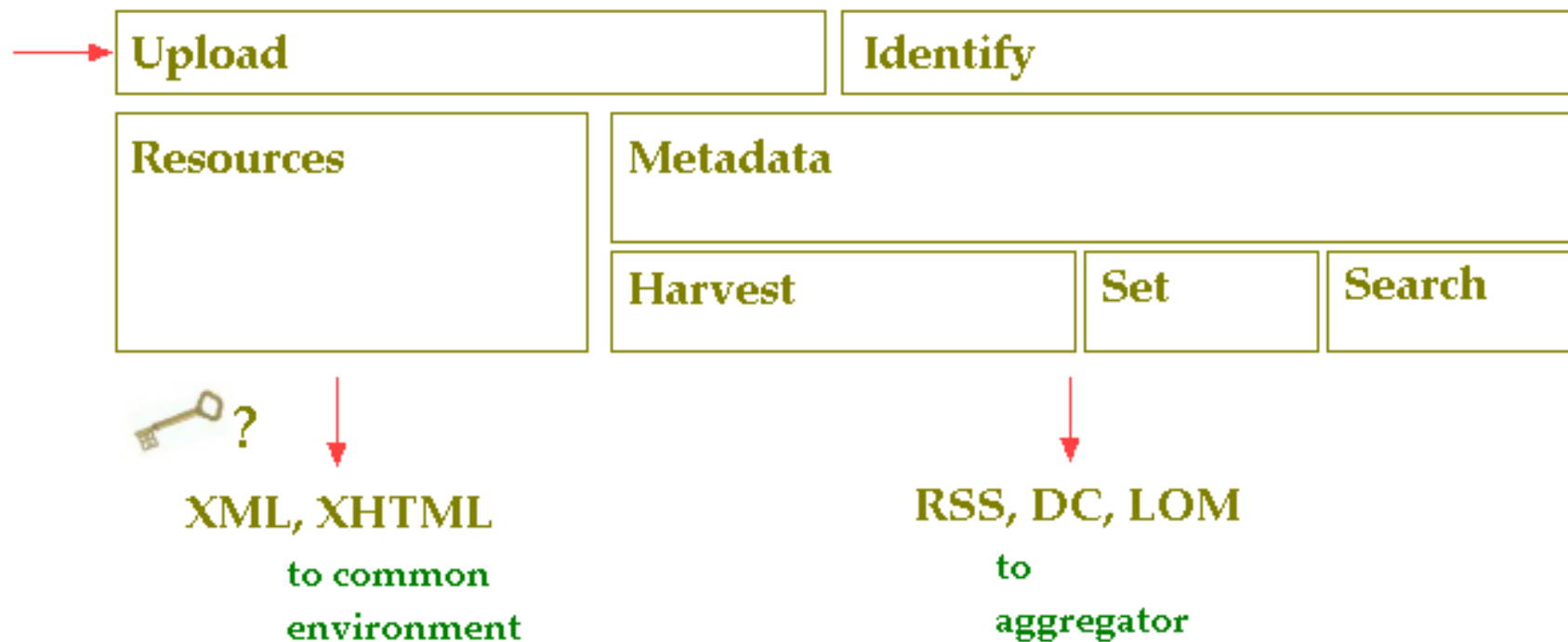
1st Party Metadata
(RSS, DC, LOM)

Resource
(XML, XHTML)

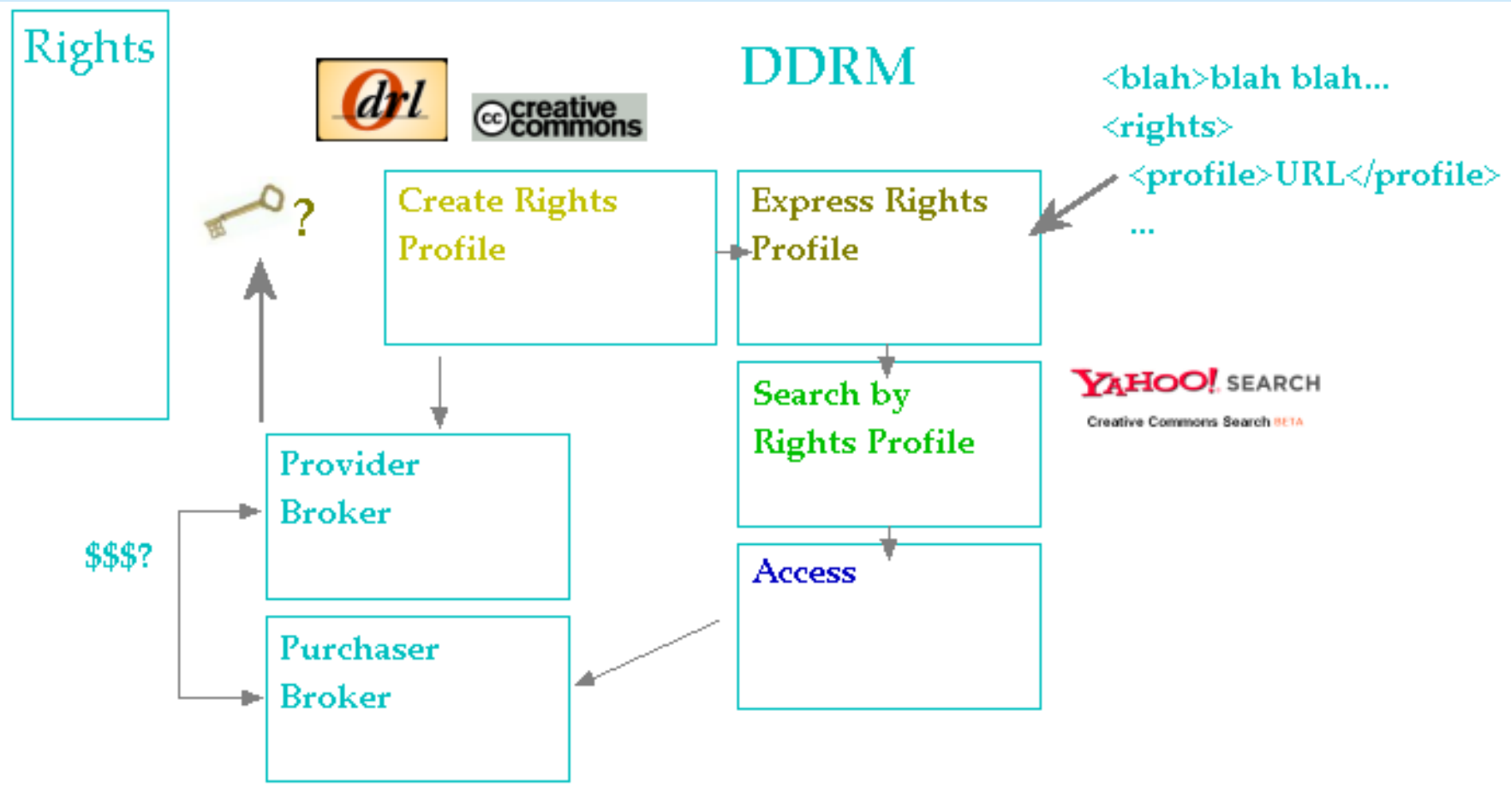
Repositories

Repositories

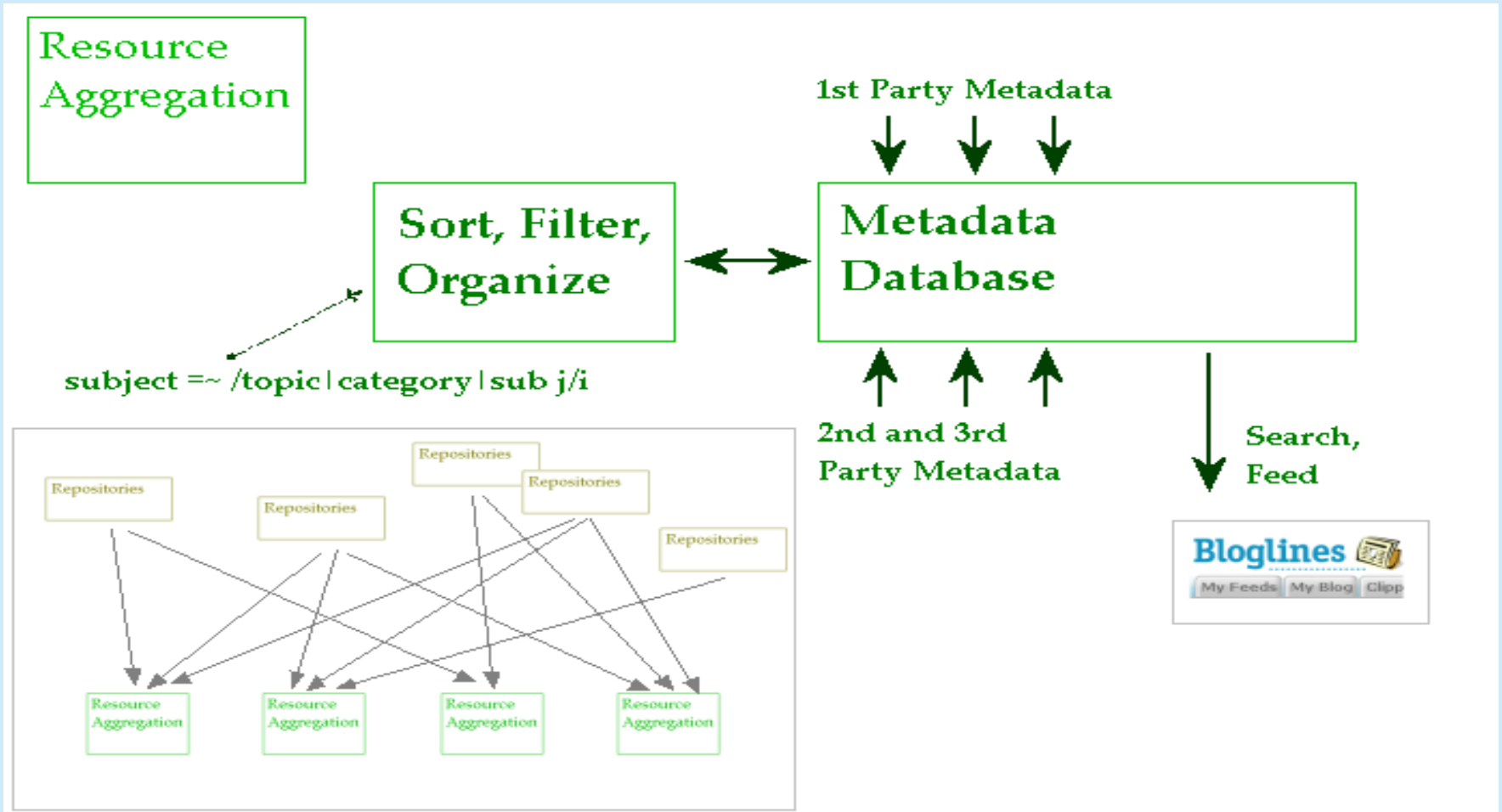
OAI, DSpace, CORDRA



Rights



Resource Aggregation



Common Environment

Common
Environment

Resource
Aggregation

Results



A vertical list of search results for 'EdTech'. The results include various articles and images related to educational technology. One prominent result is titled 'Ideas and thoughts from an EdTech' with a date of November 13, 2011.

View

Ideas and thoughts from an EdTech

November 13, 2011

Meet my Friends in my aggregator

I'll be doing 3 sessions in the next week or so. These are introductory sessions to 3 different audiences. It is the typical Digits of Tech, the...
beginner, search trends, etc. but someone in talk in the personal realm...
and doesn't get to the innovation aspect and conversation that...
other bloggers enjoy.

So this going to try the analogy of a party to introduce folks to these...
people I've met and read over the past week. It group people in the...
table they occupy in [the EdTech space](#), let's see how it works.



Meet me

The Great...
from...
I am constantly exploring...
what helps teachers in...
students learn. The...
discovering this to be a...
year to share and learn.

Drag and Drop

Syndi-
cation

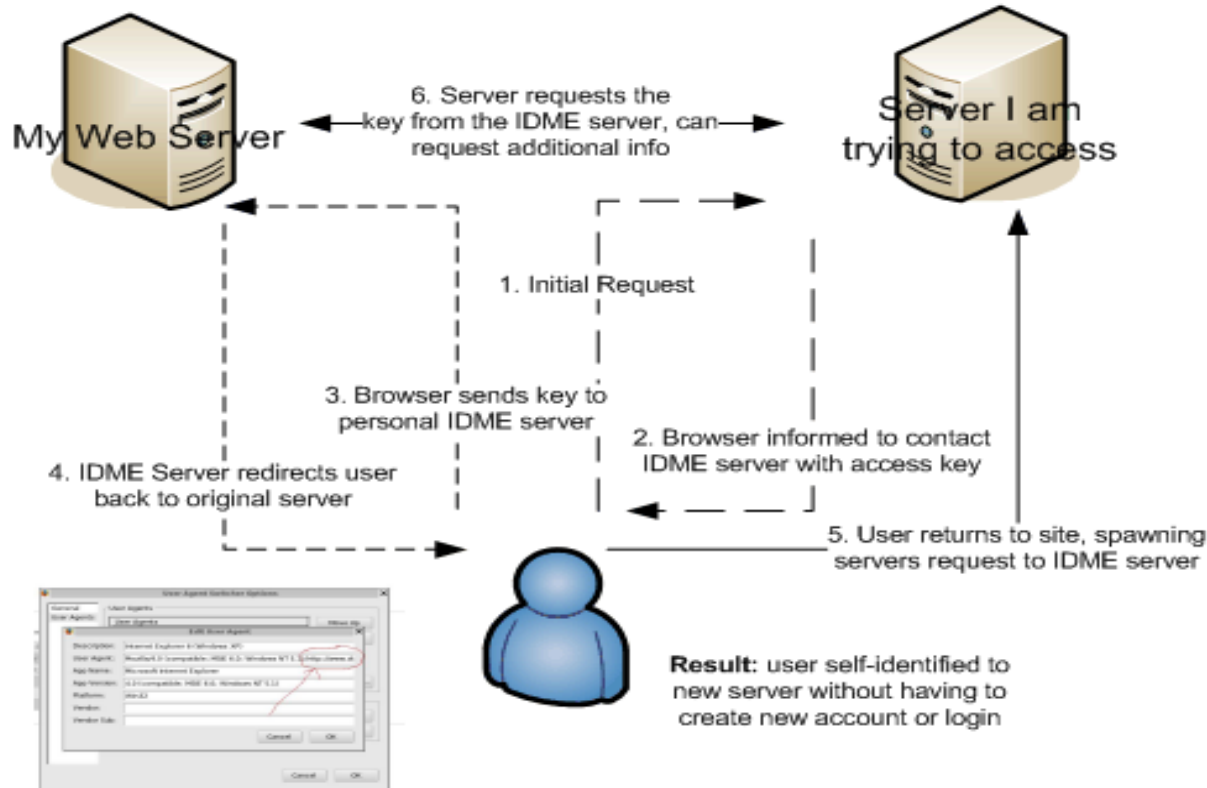
Search results page with a search bar and a list of items.

Find:

Start Search

Personal Identity

Personal Identity



mIDm

OpenID

sxip
IDENTITY

Environment Interface

Environment
Interface

Common
Environment

XSLT +



**Workflow... games... simulations...
appliances... courses...**

Syndication

Syndi-
cation

evaluation, usage, comment, tagging

Resource
Aggregation



RSS, Atom, CNXML, XML...

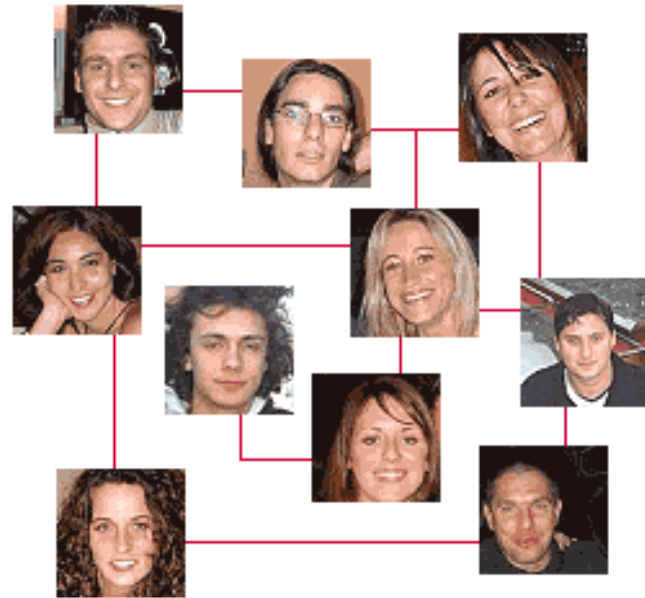
Repositories

Community

Community

Syndi-
cation

Personal
Identity



What is Radical? (5)

- **To be radical is to grasp empowerment and define a vision based on that empowerment for a better, freer society...**
- **“...a society where knowledge and learning are public goods, freely created and shared, not hoarded or withheld in order to extract wealth or influence.”**

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Coda (Aerial: A Coral Room)



There's a city, draped in net
Fisherman net
And in the half light, in the half light
It looks like every tower
Is covered in webs
Moving and glistening and rocking
It's babies in rhythm
As the spider of time is climbing
Over the ruins
There were hundreds of people living here
Sails at the windows
And the planes came crashing down
And many a pilot drowned
And the speed boats flying above
Put your hand over the side of the boat
What do you feel?

<http://www.katebush.com/>

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<http://www.downes.ca>

Science
— at work for —
Canada



National Research
Council Canada

Conseil national
de recherches Canada

Canada