



NRC-CNRC

*Institute for
Information
Technology*

Learning Networks

Stephen Downes

National Research Council Canada

December 15, 2005



National Research
Council Canada

Conseil national
de recherches Canada

Canada

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

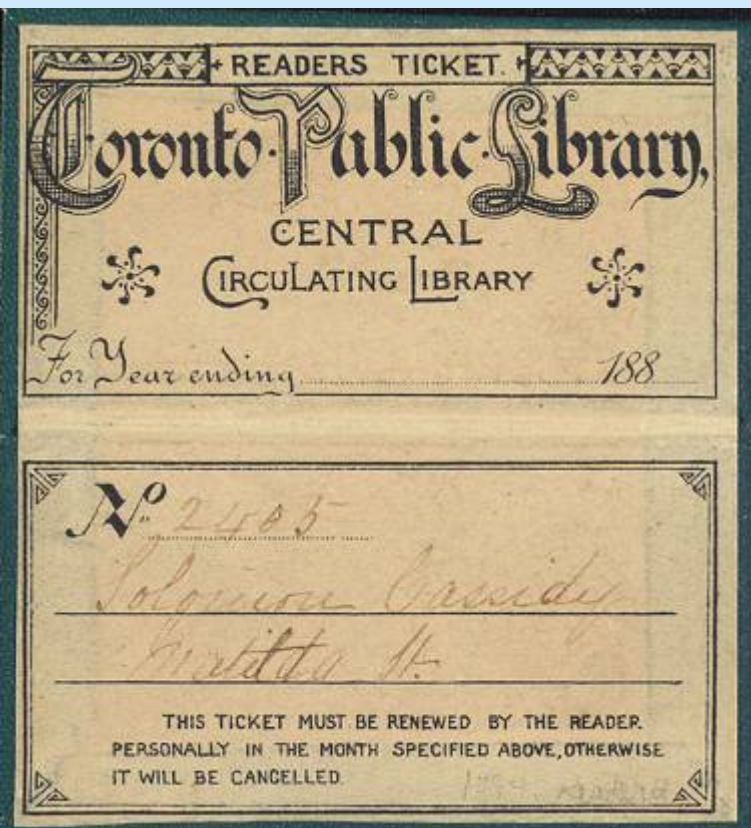
- This is *how* it happens...
- Where do we go next?

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**

Foundational 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/>

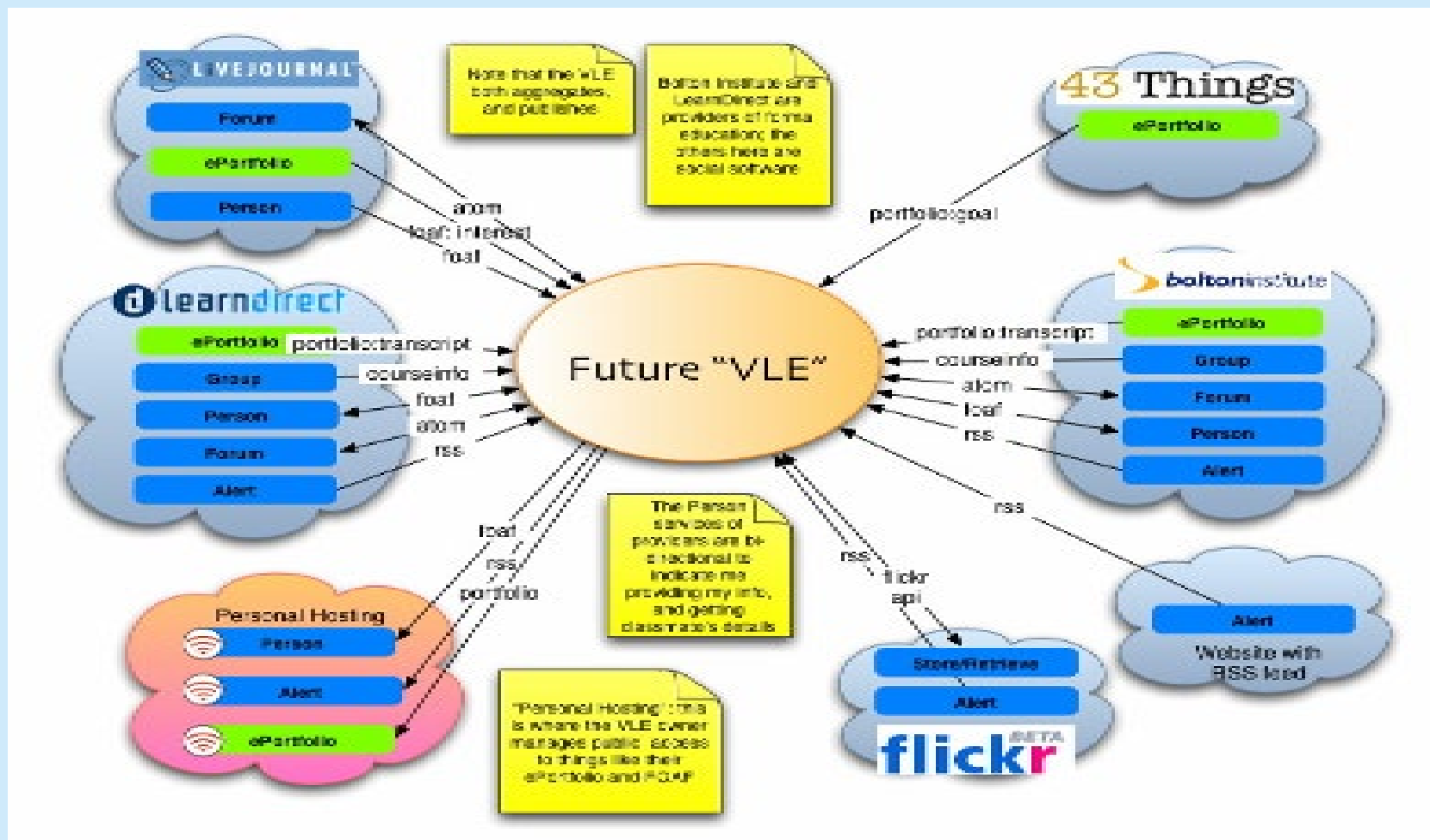
Radical Ideas...

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

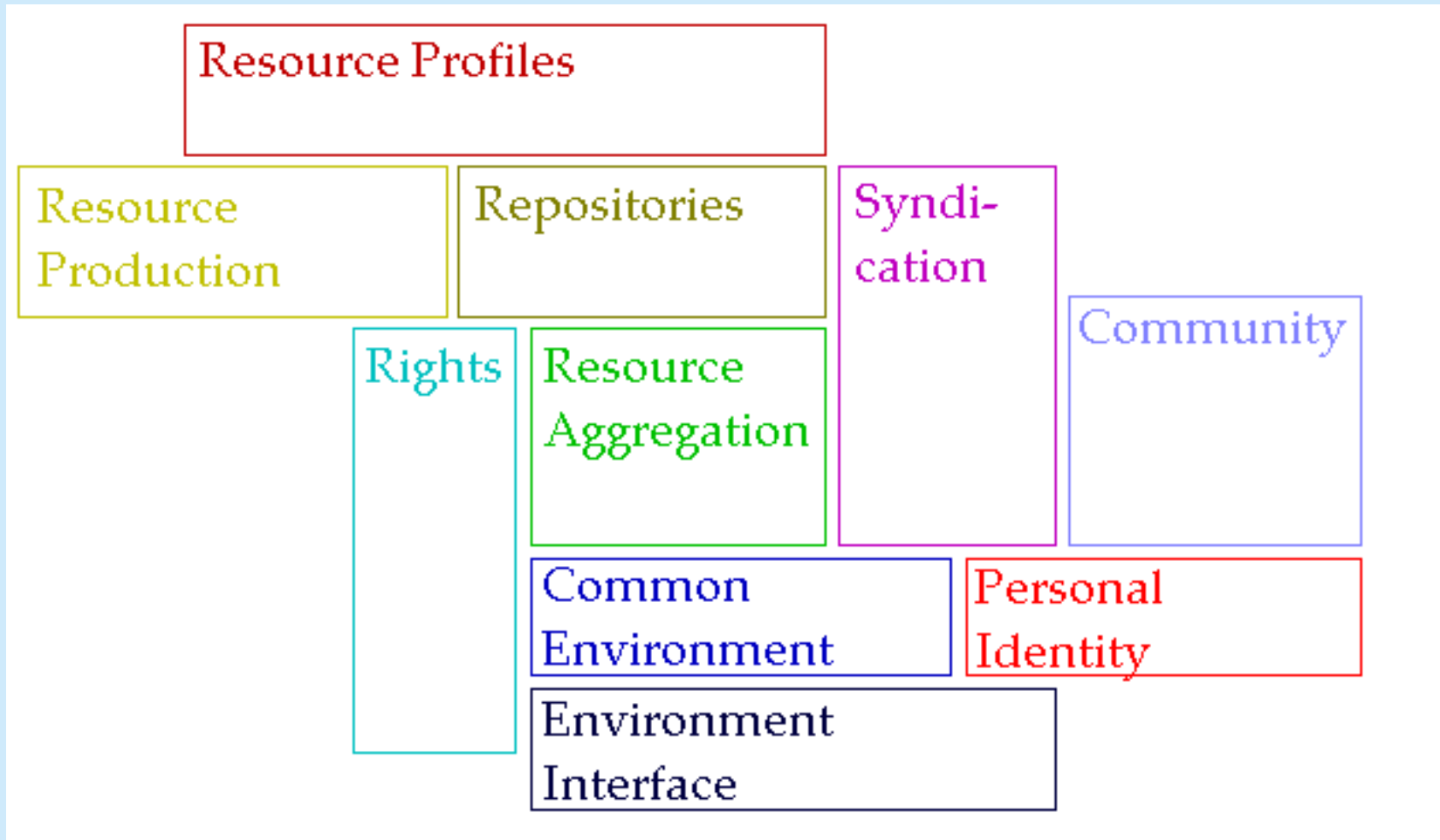
More on these...

E-Learning 2.0...



Architecture

Rethinking Learning Resources...



The NRC Connection...

Resource Profiles



Resource
Production



Repositories

Syndi-
cation

Community

Rights
★

Resource
Aggregation



Common
Environment

Personal
Identity

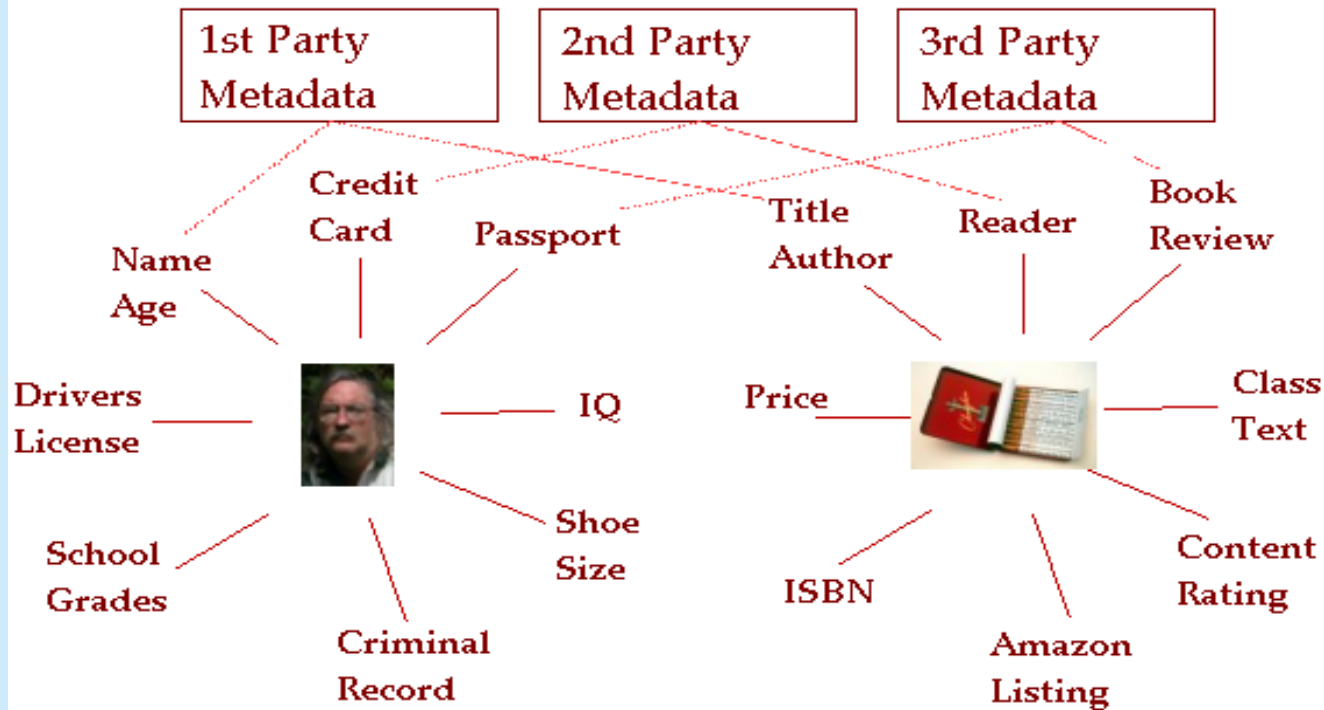


Environment
Interface

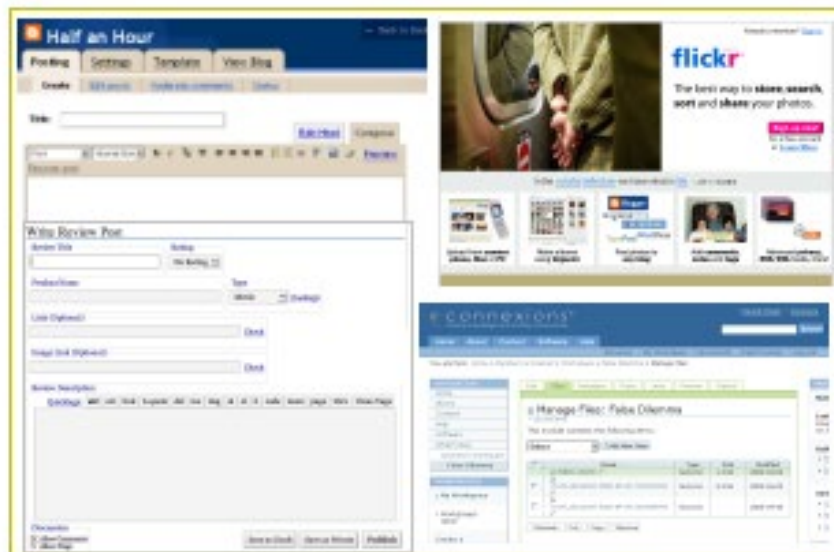


Resource Profiles

Resource Profiles



Resource Production



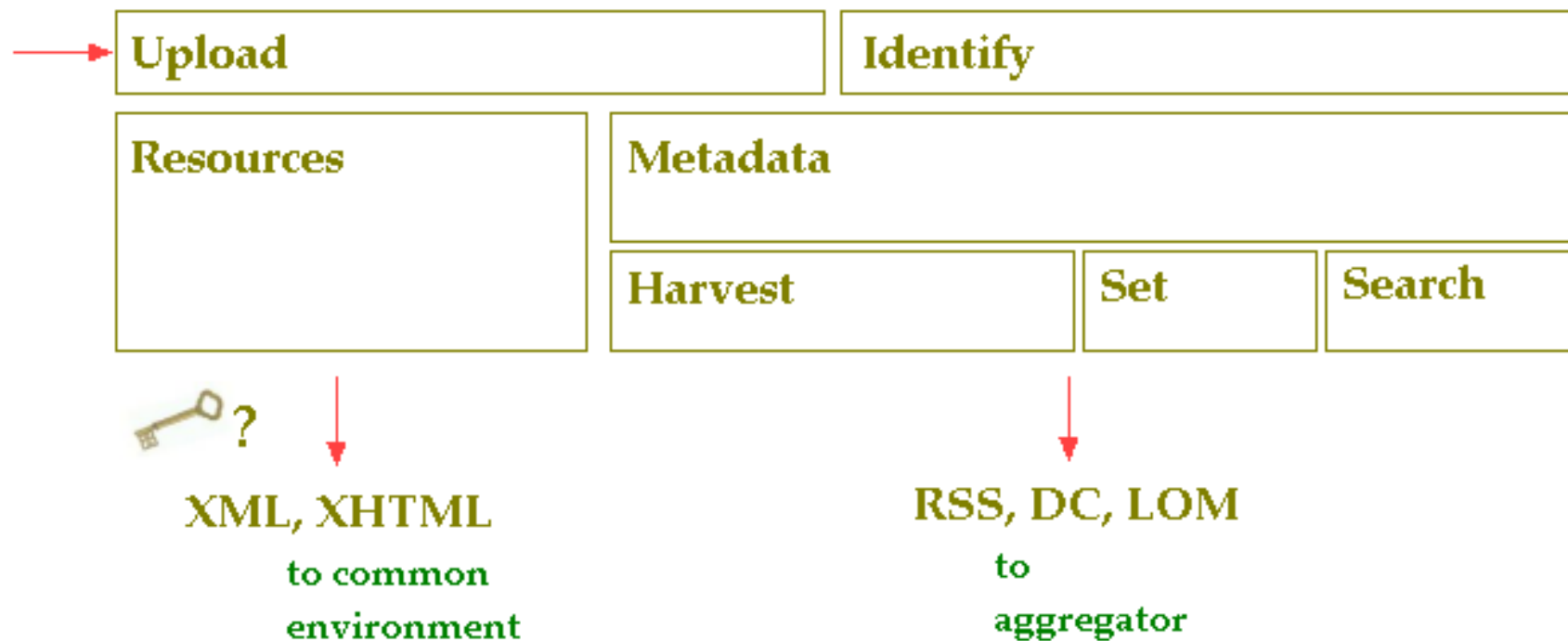
1st Party Metadata
(RSS, DC, LOM)

Resource
(XML, XHTML)

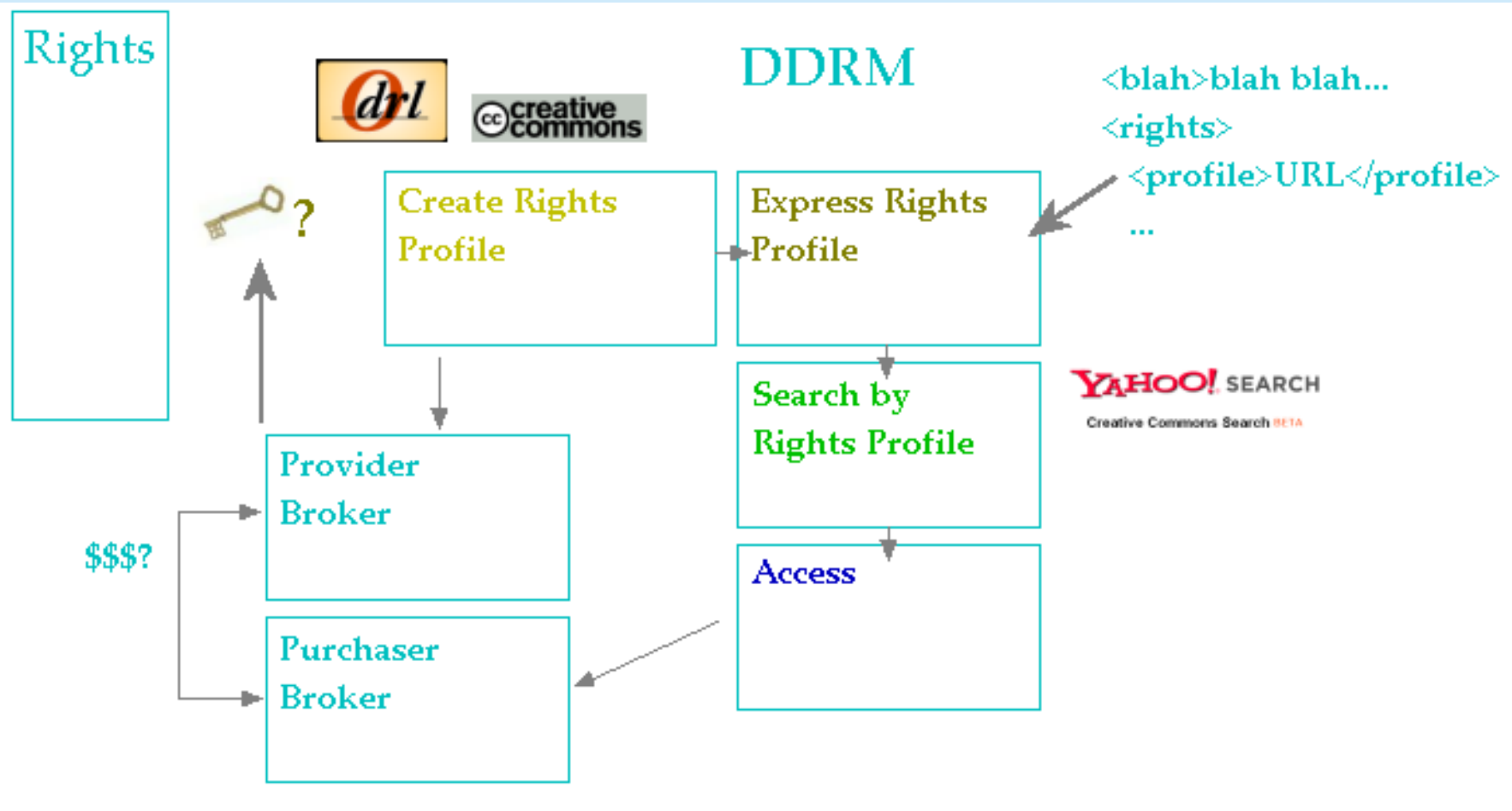
Repositories

Repositories

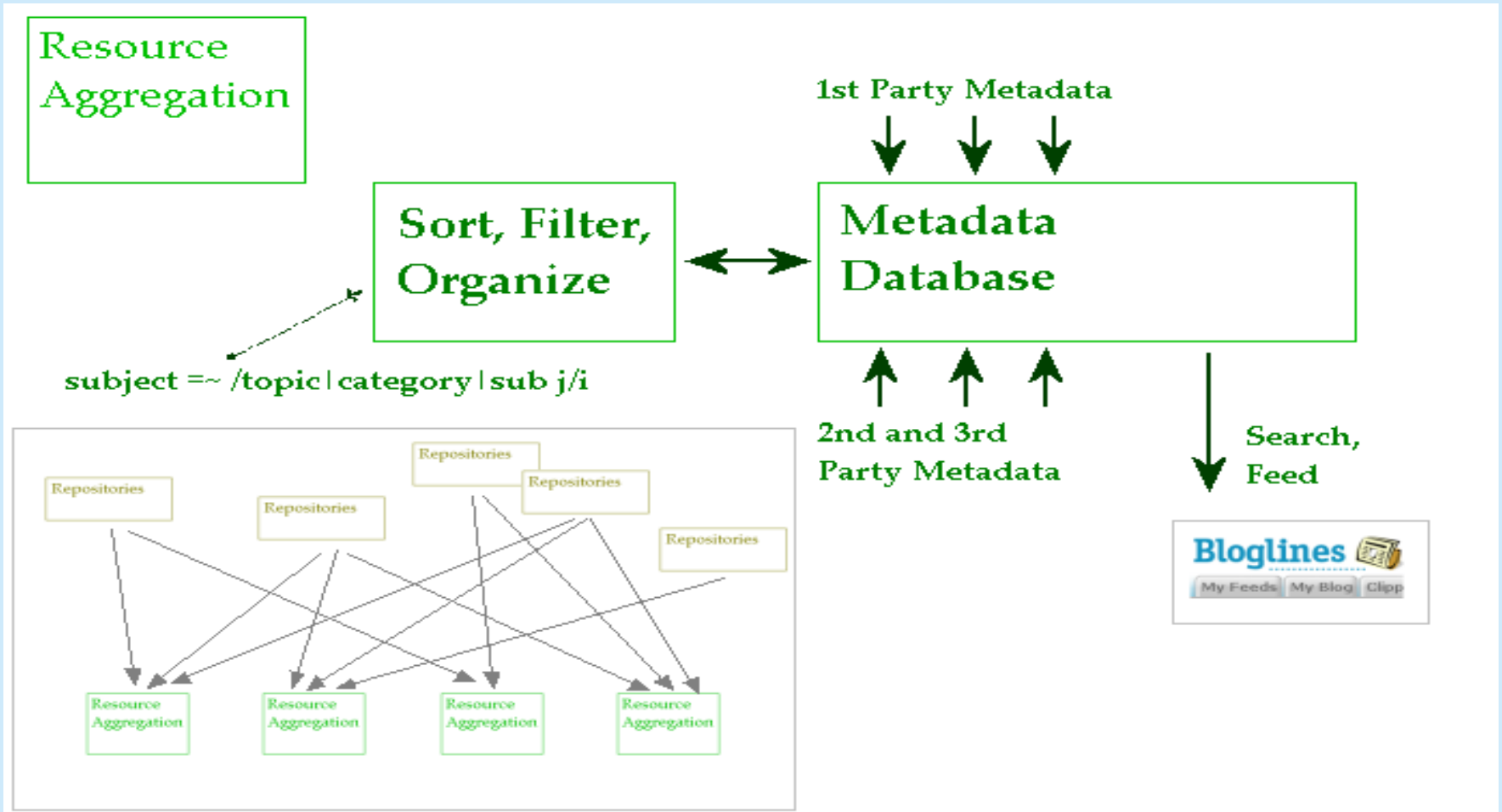
OAI, DSpace, CORDRA



Rights



Resource Aggregation



Common Environment

Common
Environment

Resource
Aggregation

Results

View

Ideas and thoughts from an EdTech

Tuesday, November 15, 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...
beginners, search trends, etc. but someone is taking the personal touch...
and doesn't get to the innovation aspect and conversation that...
other bloggers enjoy.

So I'm going to try the analogy of a party to introduce folks to those...
people I've met and read over the past week. It's group people in the...
folder they include in [my aggregator](#), let's see how it works.

Meet me

The Great Shamrock
from [Moose Jaw, Saskatchewan, Canada](#)
is a education technologist. I am constantly exploring what helps teachers in my...
students learn. It's discovering this to be a...
year to share and learn.

Drag and Drop

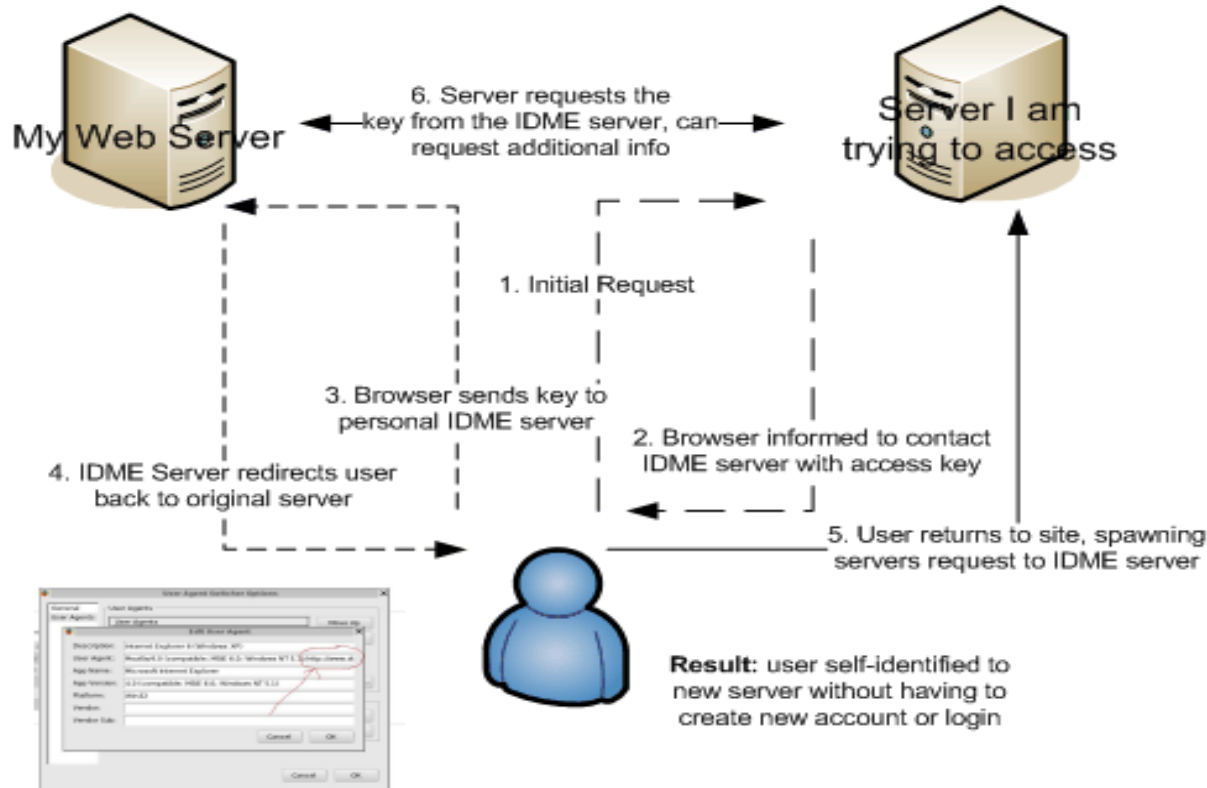
Syndi-
cation

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...

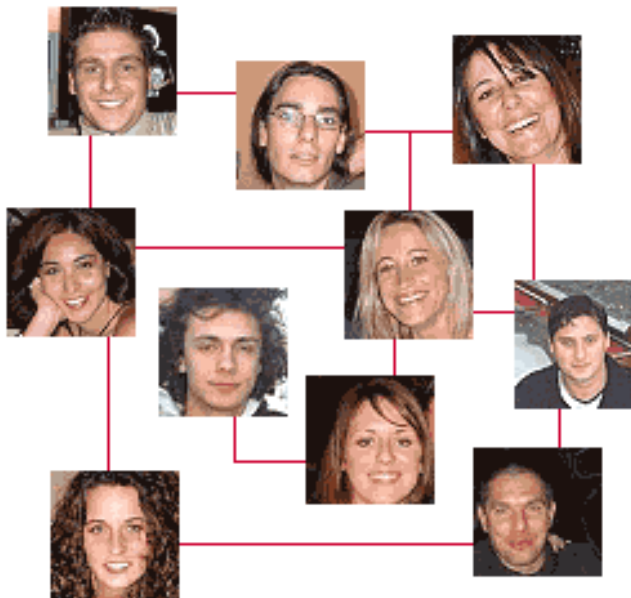
Repositories

Community

Community

Syndi-
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<http://www.downes.ca>

Science
— at work for —
Canada



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