



**NRC-CNRC**

*Institute for  
Information  
Technology*

# Learning Networks

**Stephen Downes**  
**National Research Council Canada**  
**January 25, 2006**



National Research  
Council Canada

Conseil national  
de recherches Canada

Canada

# The Concept

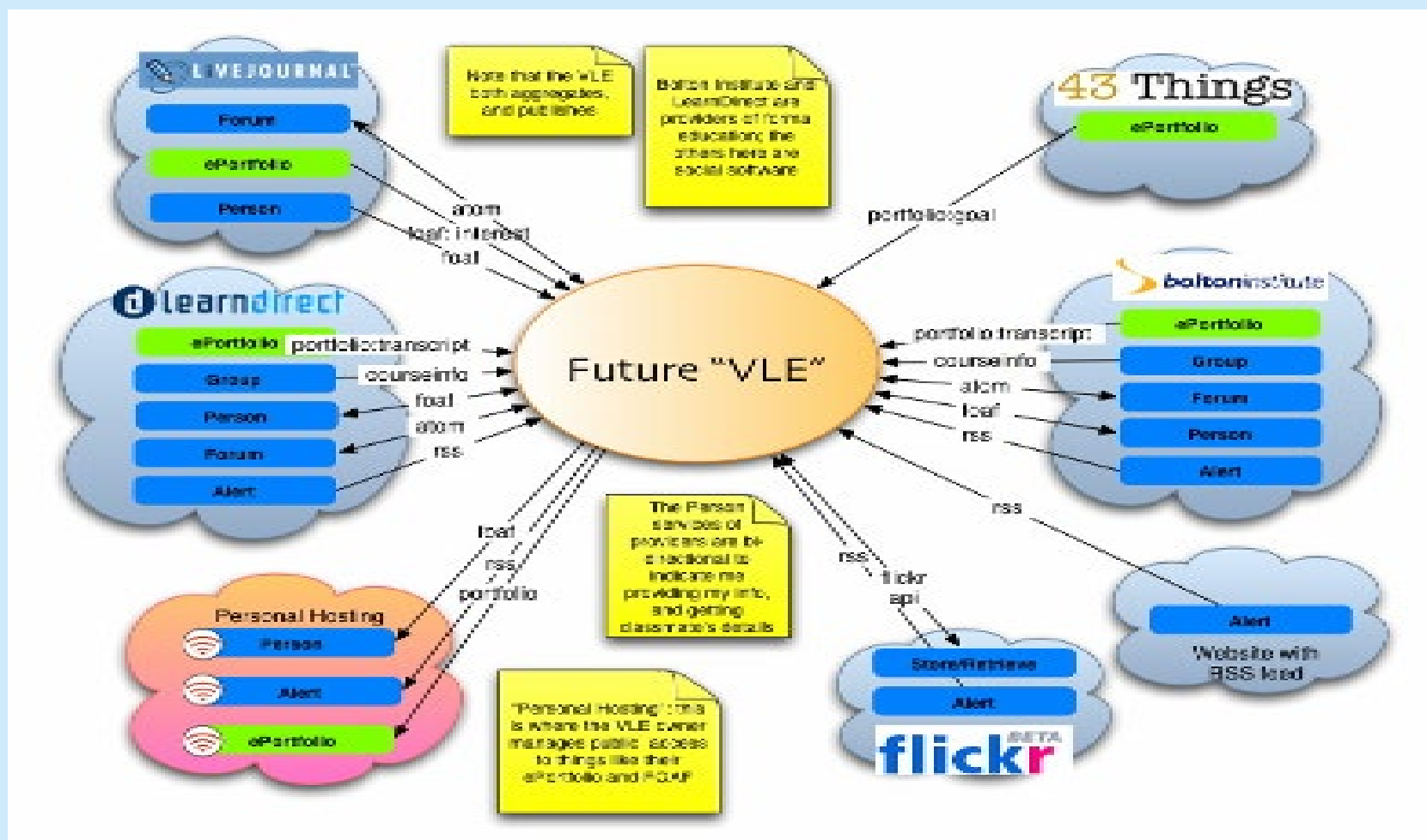
**Learning  
as a flow of communication  
through a network...**

# Learning...

## Learning as a network phenomenon...

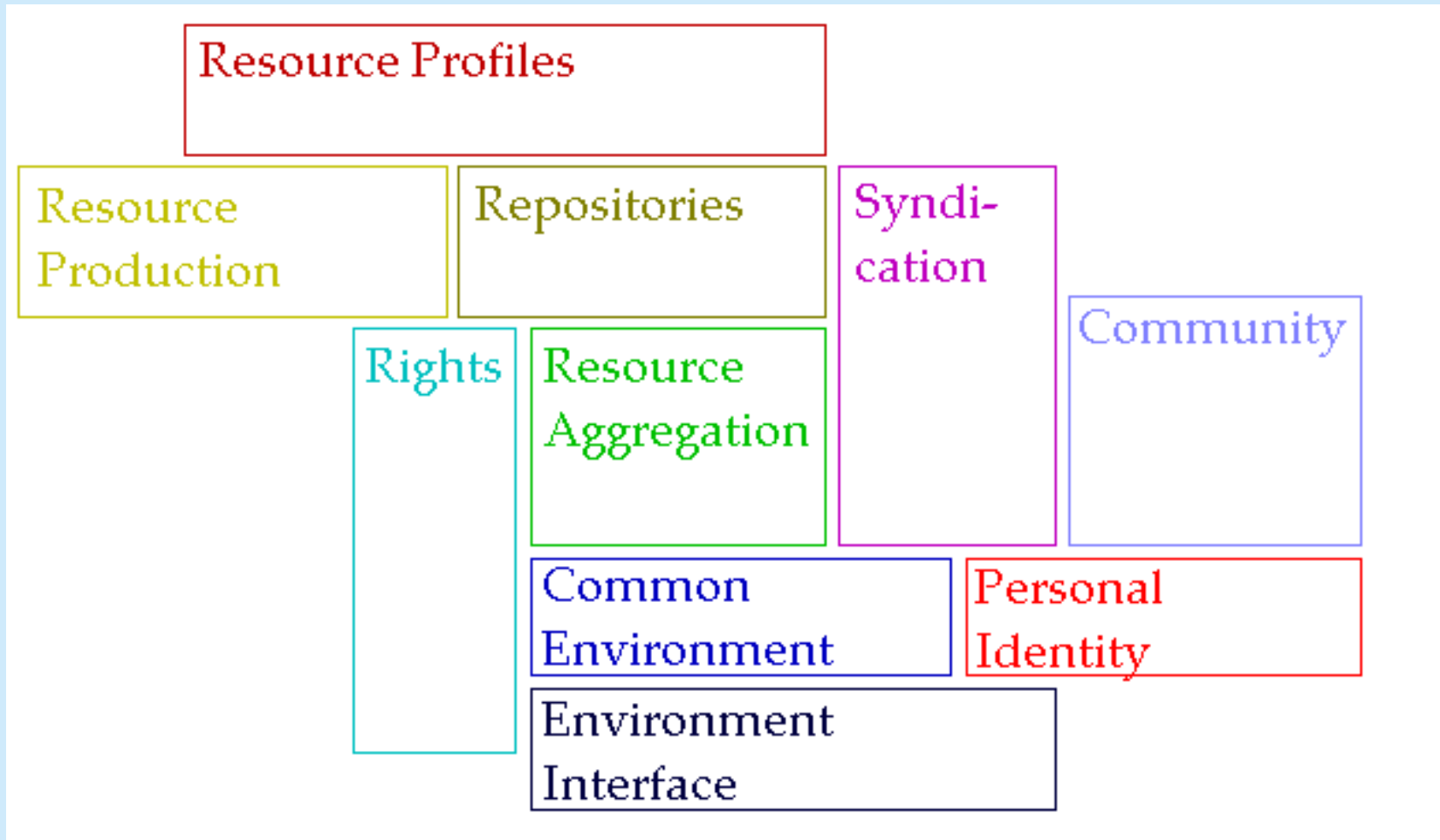
- **Web of user-generated content...**
- **Social networks and communities (entails a genuinely portable (and *owned*) identity)**
- **Networks of interactions (aggregate, remix, repurpose, feed forward) – syndication**
- **The *personal* learning centre**

# E-Learning 2.0...



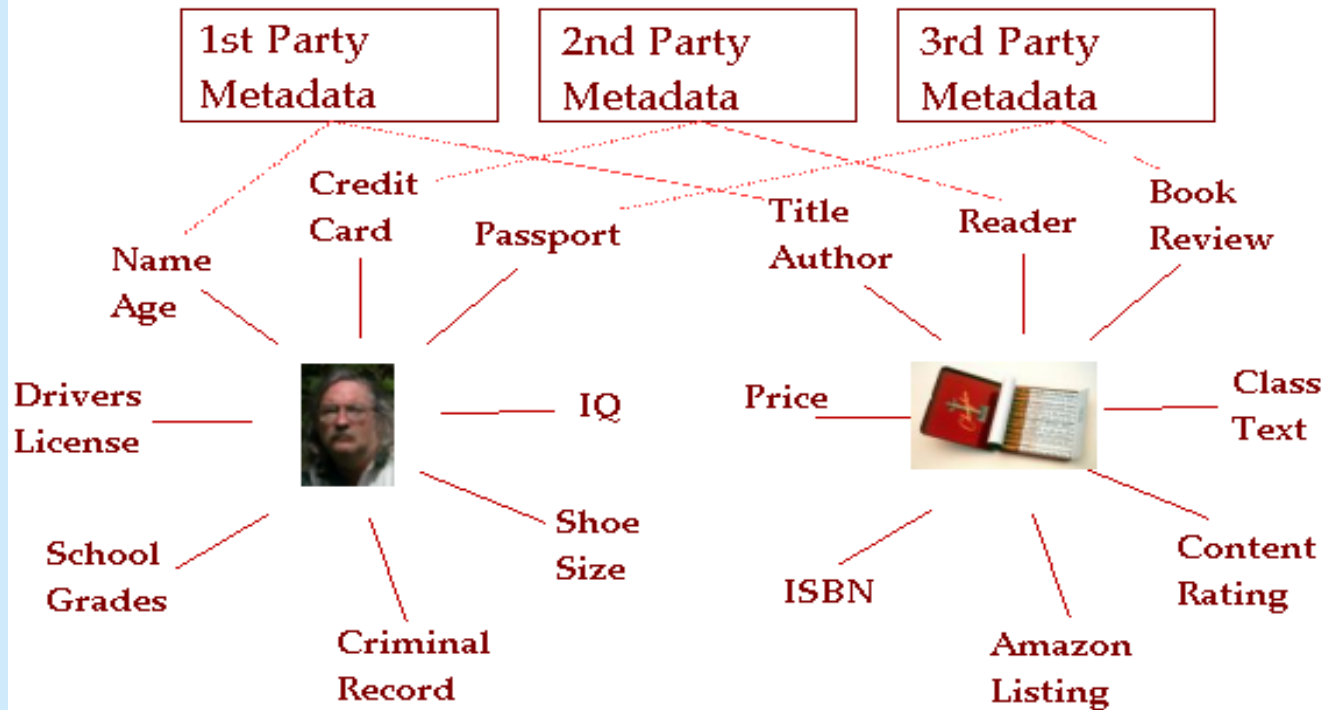
# Architecture

Rethinking Learning Resources...



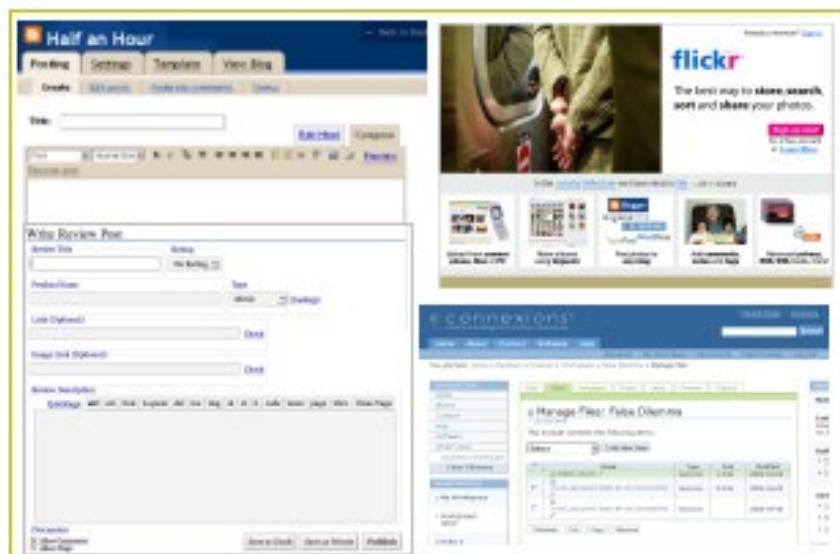
# Resource Profiles

## Resource Profiles



# Resource Production

## Resource Production



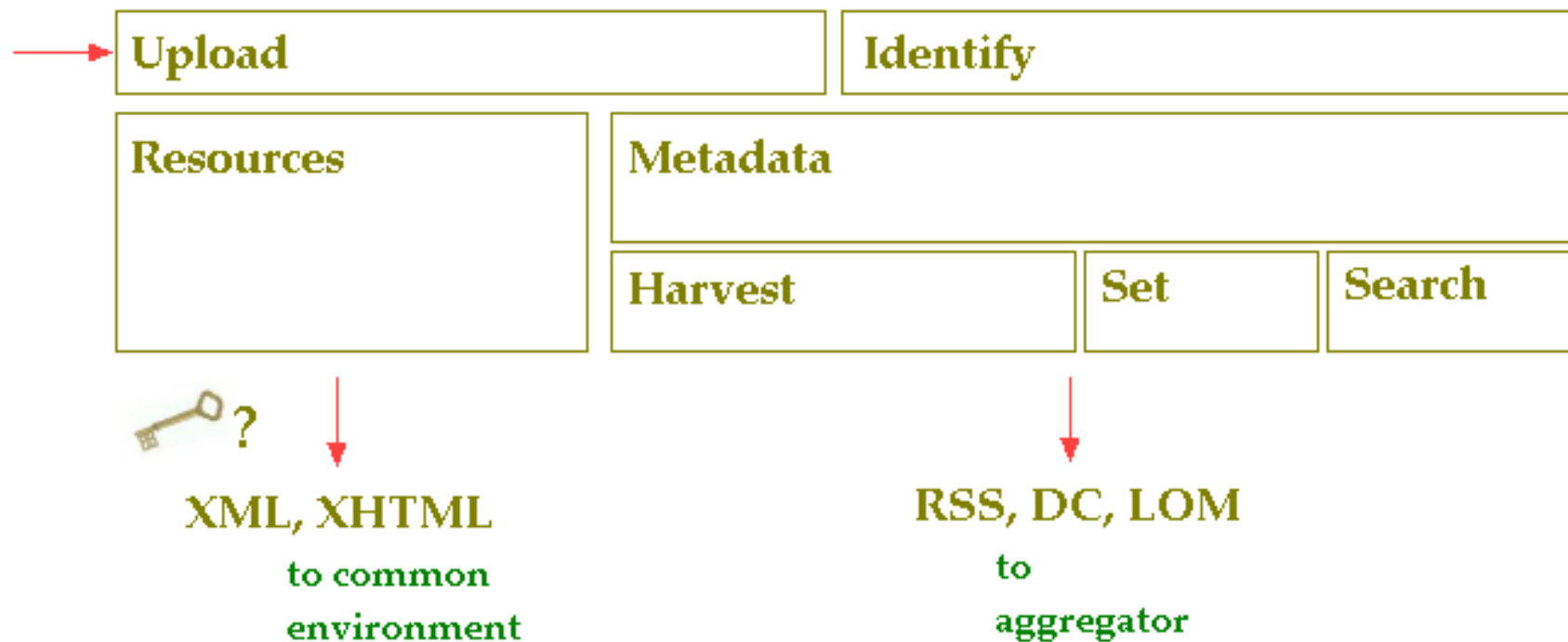
1st Party Metadata  
(RSS, DC, LOM)

Resource  
(XML, XHTML)

# Repositories

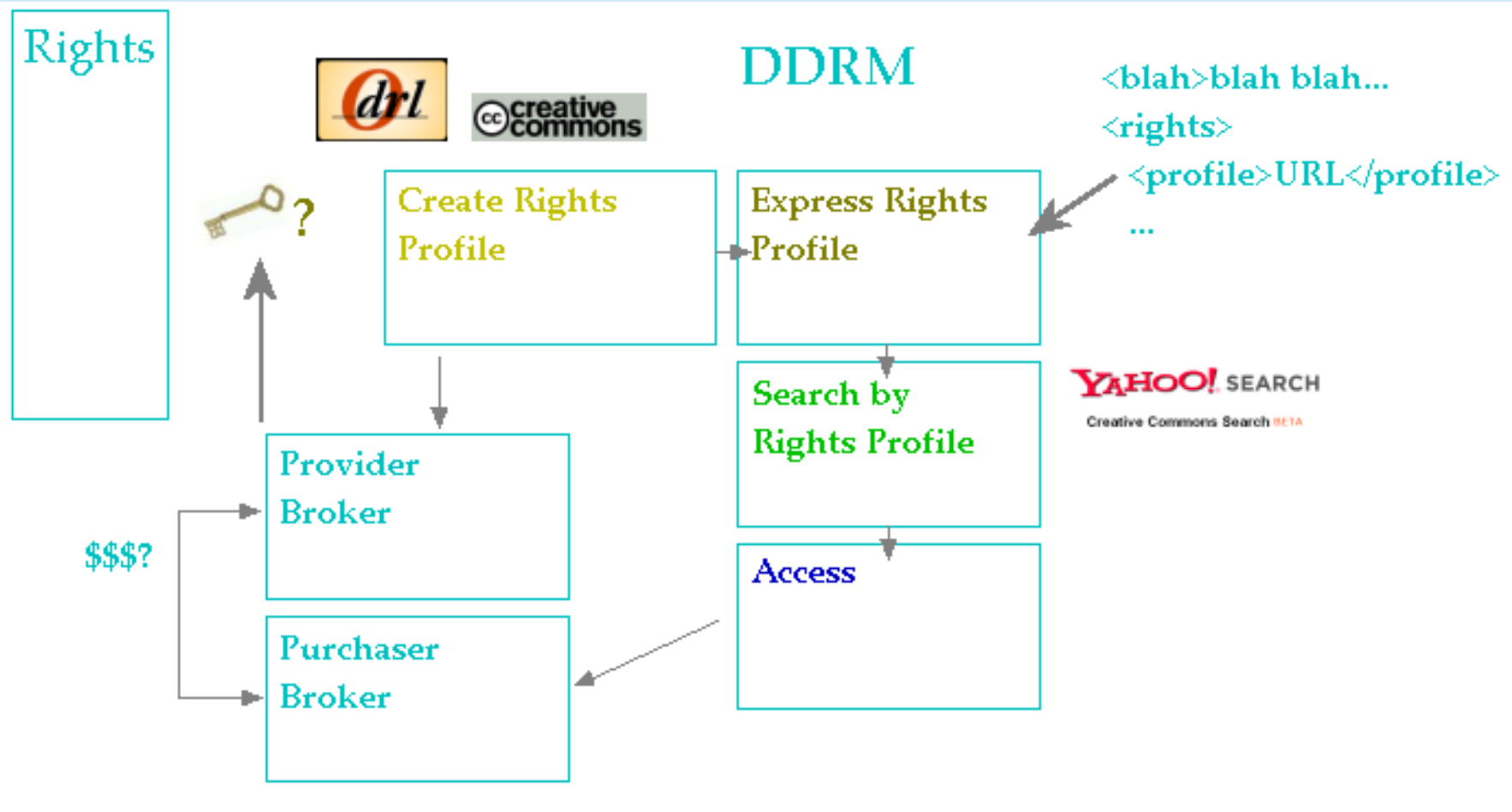
Repositories

OAI, DSpace, CORDRA

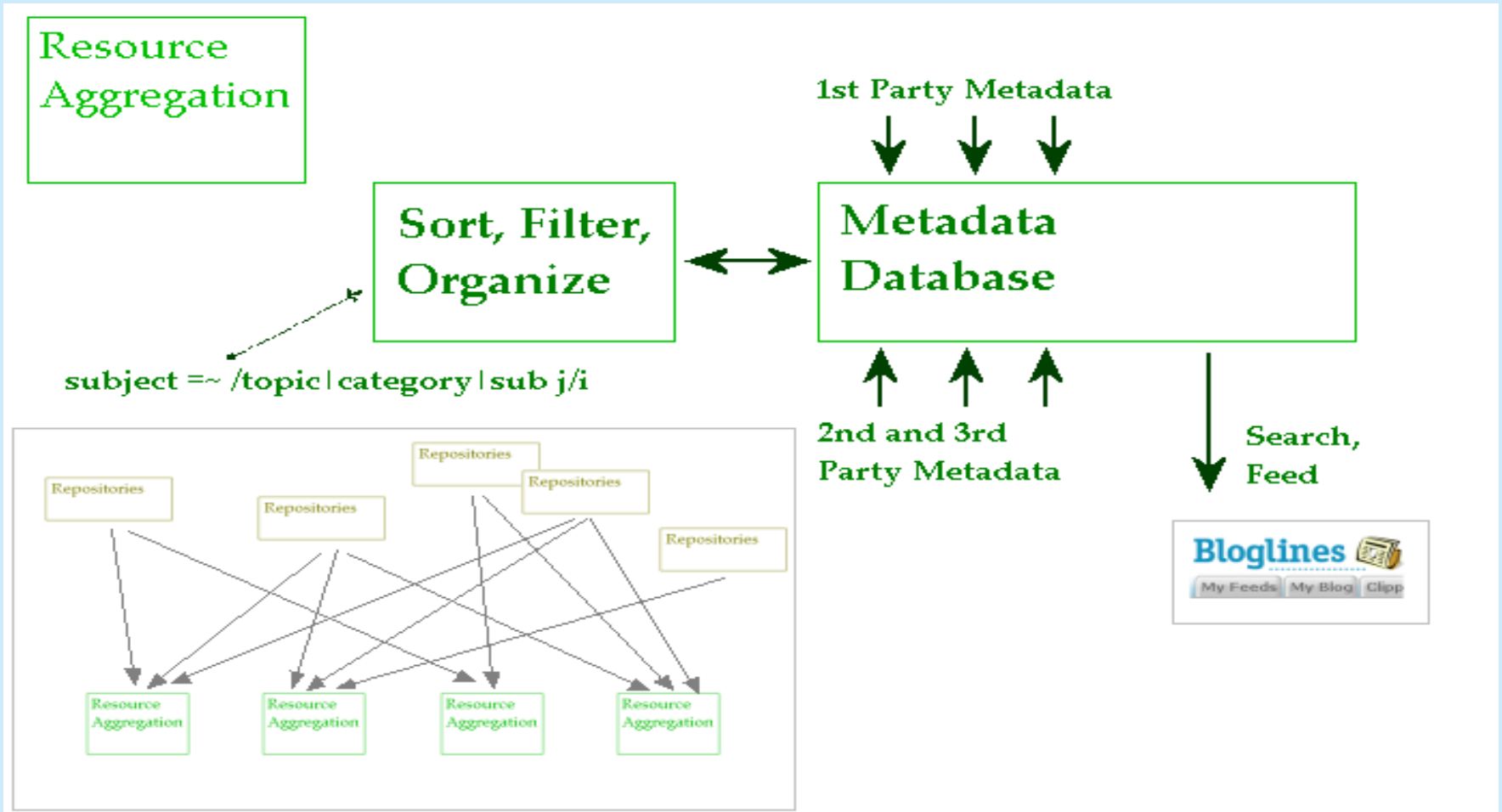




# Rights



# 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. The top result is a yellow article titled 'Ideas and thoughts from an EdTech'.

View

**Ideas and thoughts from an EdTech**

Monday, 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...  
title they include in [my aggregator](#), let's see how it works.



**Meet me**

**The Great Shamrock**  
from [Marianne Ann](#),  
[TaraLynn Brown](#),  
[Caroline](#)  
is a educationist/teacher.  
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 for 'EdTech' showing a list of items with titles and descriptions. A box highlights a specific item, and an arrow points from the 'Results' section to this box.

**RESULTS**

- EdTech** - List of items of the [EdTech](#) aggregator
- EdTech** - List of groups
- EdTech** - Complete list

**RESULTS**

- EdTech** - Look for items generated on [EdTech](#)
- EdTech** - This is a list of items generated on [EdTech](#)
- EdTech** - This is a list of items generated on [EdTech](#)

**RESULTS**

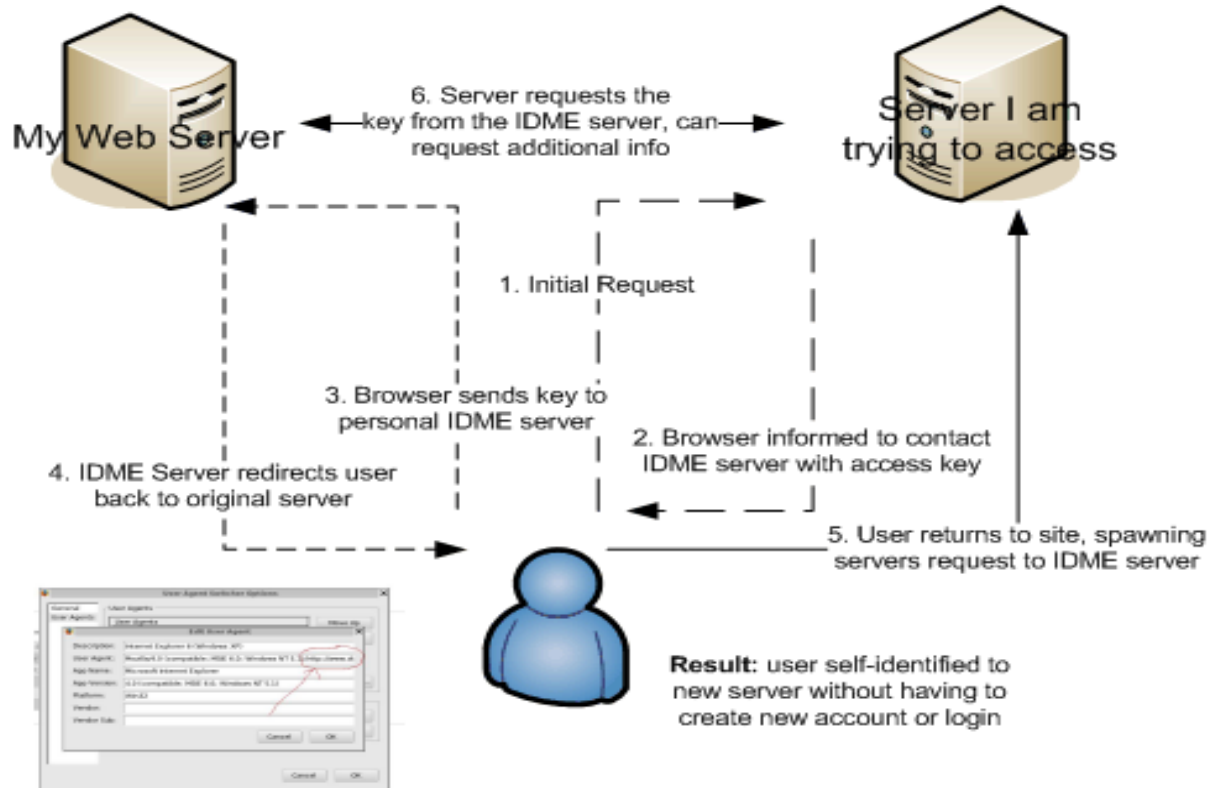
- EdTech** - This is a list of items generated on [EdTech](#)
- EdTech** - This is a list of items generated on [EdTech](#)
- EdTech** - This is a list of items generated on [EdTech](#)

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...

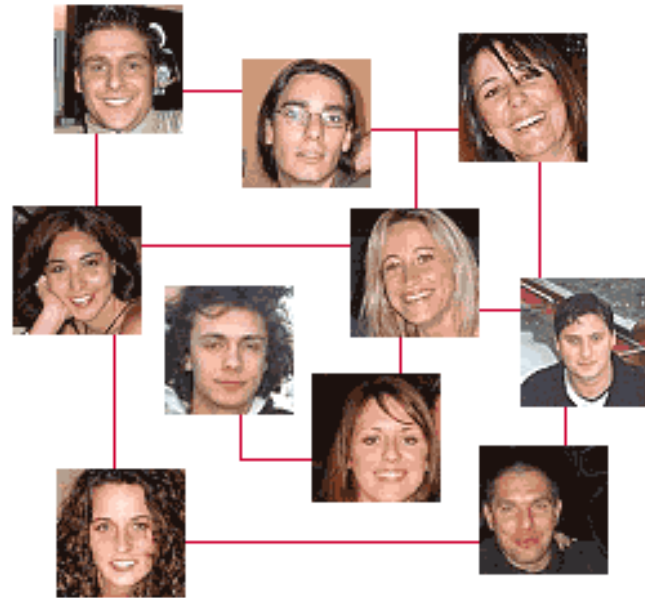
Repositories

# Community

Community

Syndi-  
cation

Personal  
Identity



**NRC CNRC**

*Institute for  
Information  
Technology*

<http://www.downes.ca>

Science  
— at work for —  
Canada



National Research  
Council Canada

Conseil national  
de recherches Canada

Canada