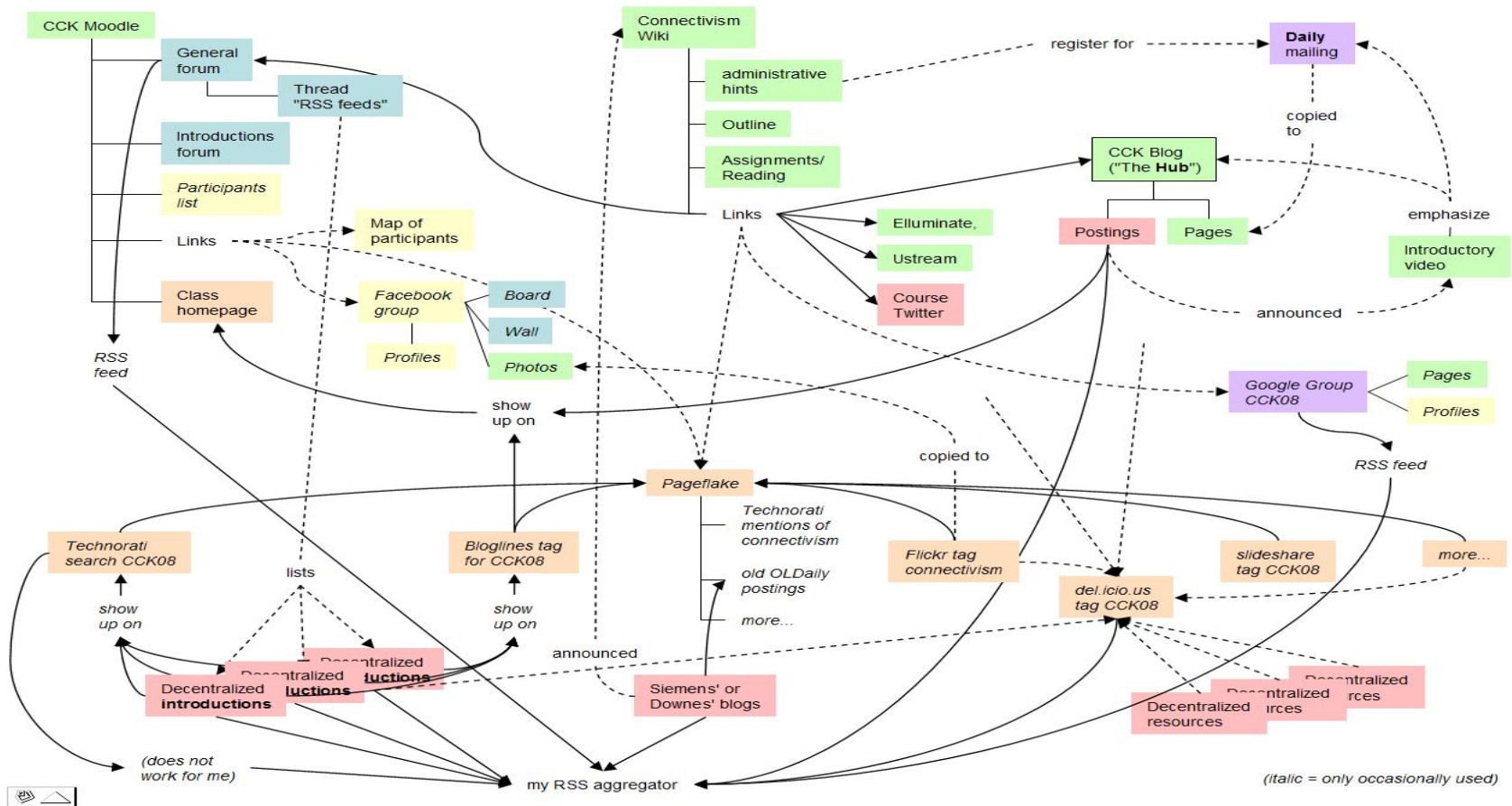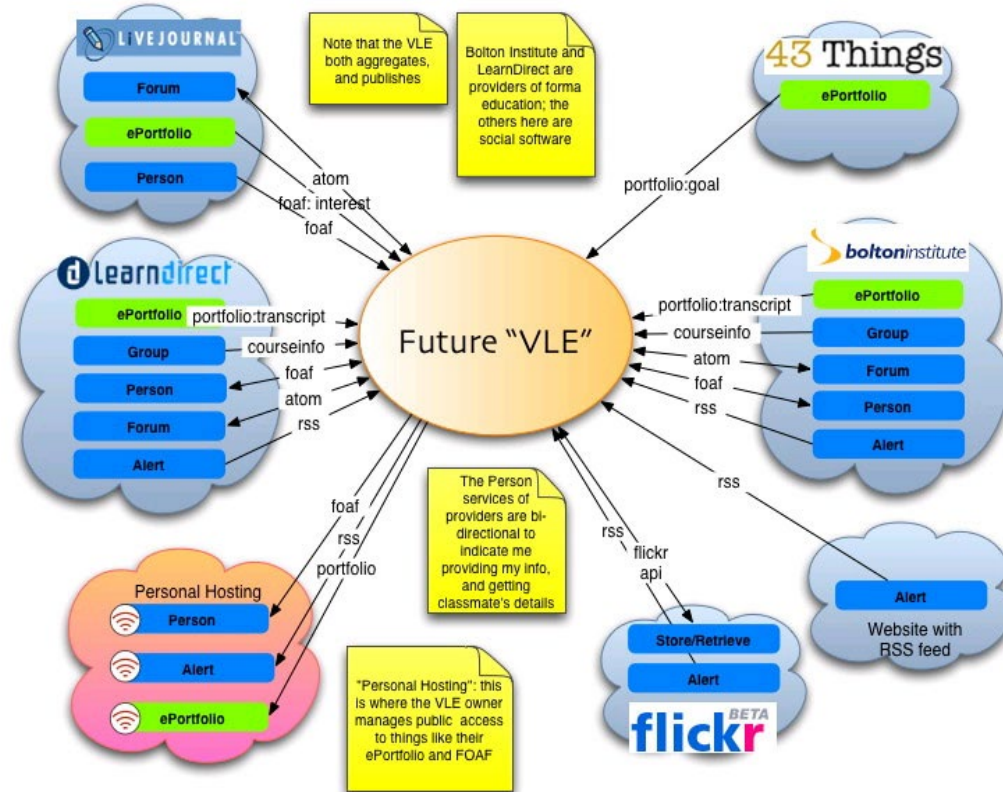# Open Education: Projects and Potential

Stephen Downes

ECOO Richmond Hill

November 12, 2009

The Connectivism & Connective Knowledge Course

A Distributed Learning Model

The web of the future isn't about visiting sites, it's about connecting resources.

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

Freedom to
- access
- copy
- modify
- redistribute

Foote 2005, Doyle 2005

Conditions?

Attribution
Share-Alike
Non-commercial
No-modify
Educational
Other?

Matter more in conditions
of scarcity, not abundance

What resources?

OER

Not just courseware…

CONTENT

TOOLS

CAPACITY
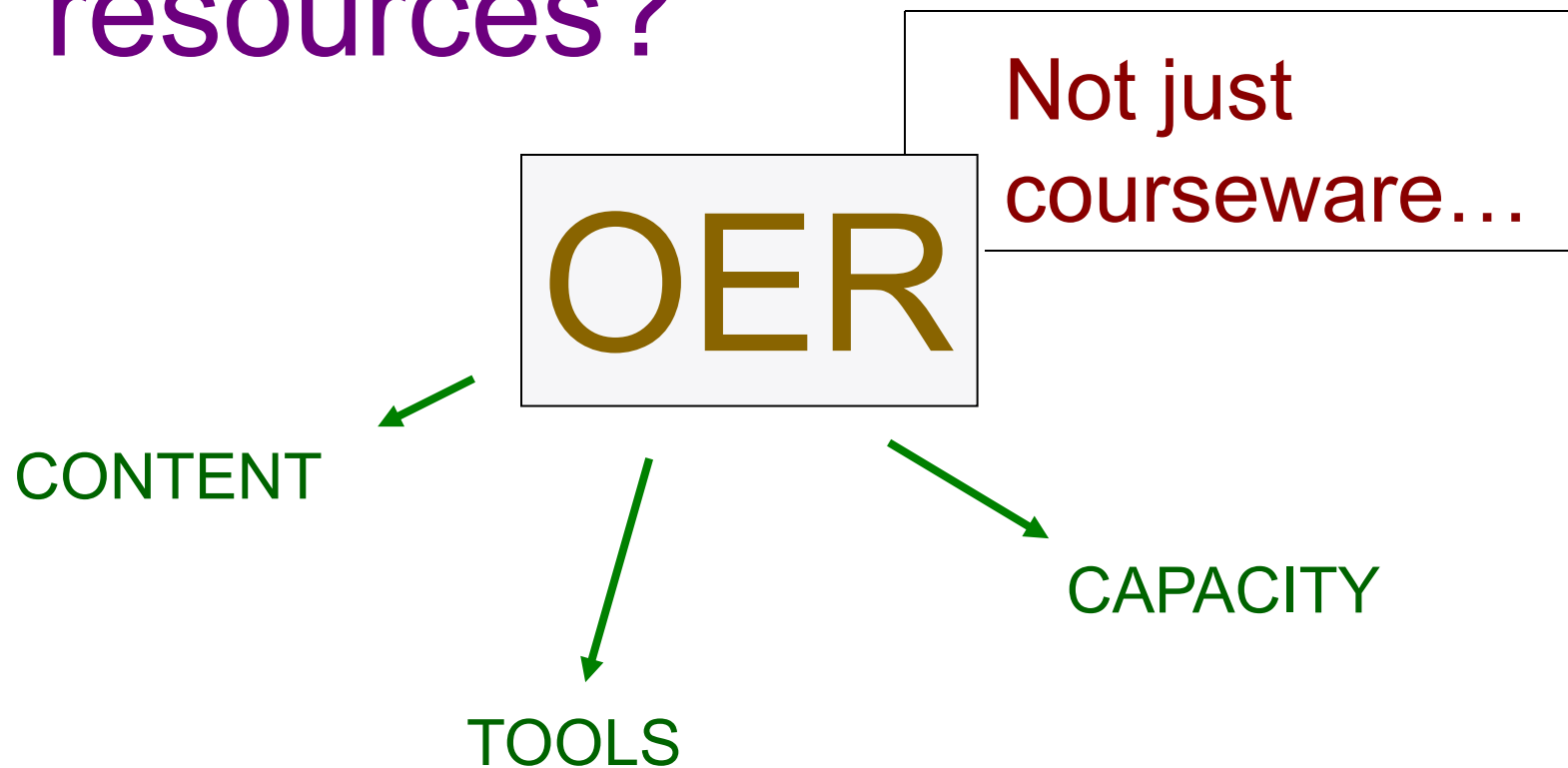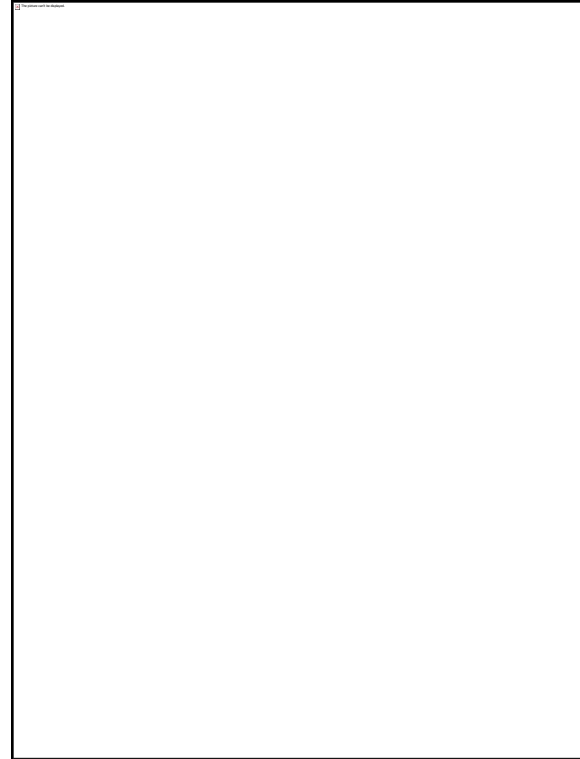
More than just cost…

we need to consider:

  - usability

  - durability

  - accessibility

  - effectiveness

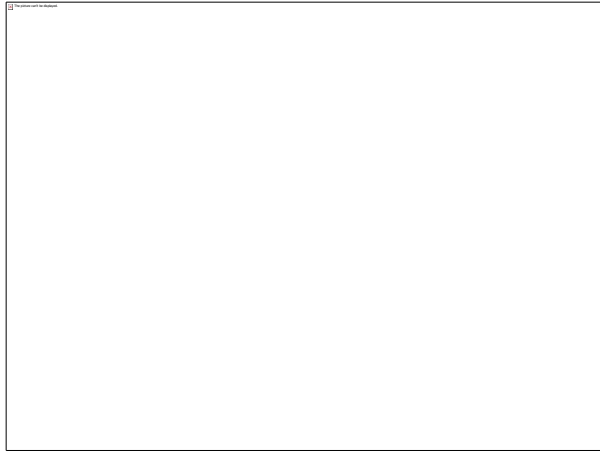-**Alternate objective: free as in freedom**
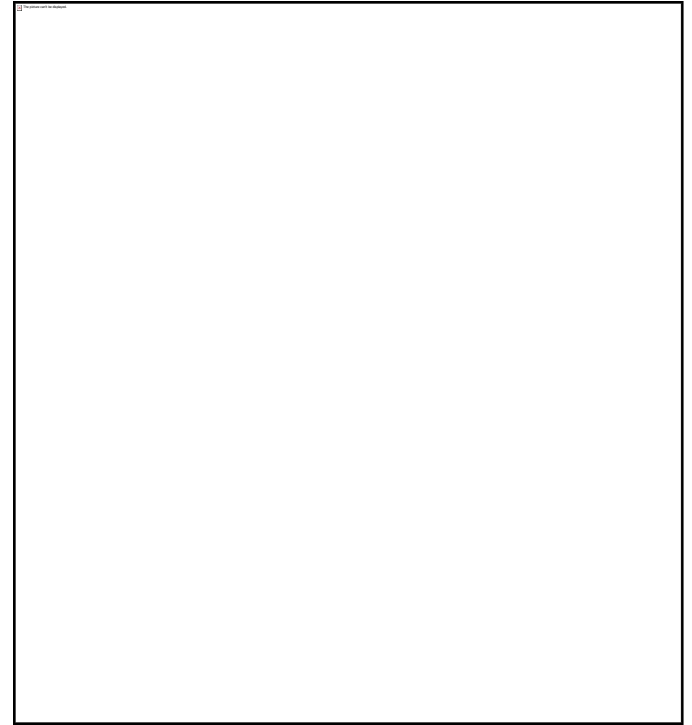
Licensing Initiatives

- The idea of open content licenses is similar to open source - to protect the openness using existing law

- Creative Commons

The idea is to create a mid-range of licenses between Copyright and public domain - "some rights reserved"

- GNU Free Documentation License

Conditions:
- attributions of authors
- changes must be logged
- share-alike
- unmodified sections
- no proprietary formats or DRM
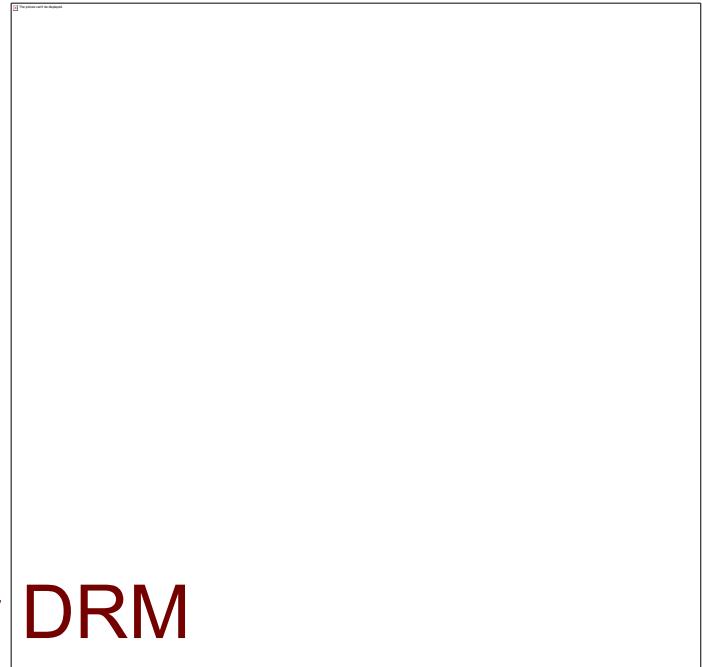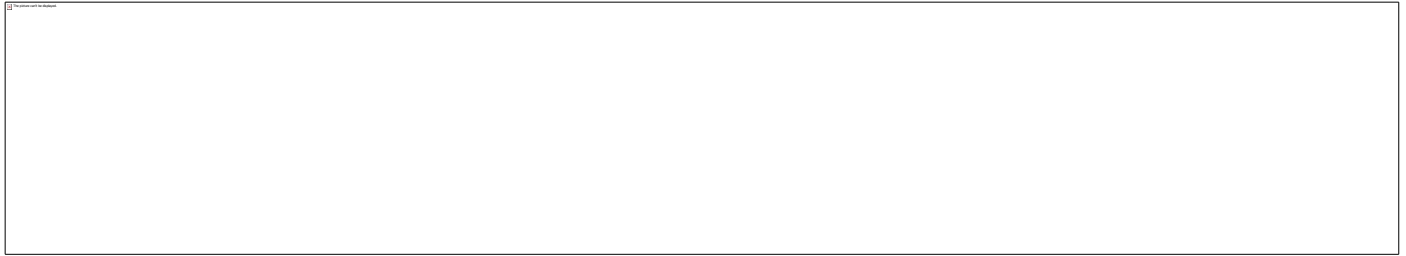
- Open Publication License

http://opencontent.org/openpub/

- Attribution
- Notification of modifications
- No-derivatives clause allowed

David Wiley

http://opencontent.org/blog/
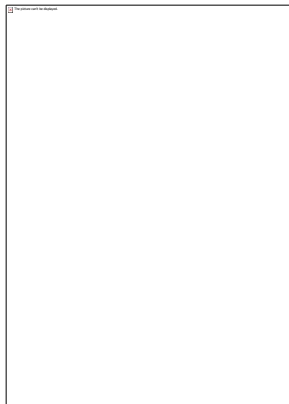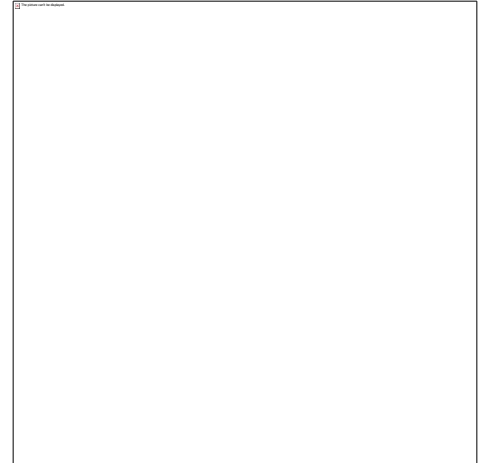
- Stumbling block: mixing licenses

- **Stumbling block: license expression**

Three ways to express licenses:
- Ccrel - http://wiki.creativecommons.org/CcREL
- XrML (AKA MPEG-REL) - http://www.xrml.org/
- ODRL - http://odrl.net/

Open Courseware Initiatives

- MIT OpenCourseWare
  http://ocw.mit.edu

* OCW is not an MIT education.
* OCW does not grant degrees or certificates.
* OCW does not provide access to MIT faculty.
* Materials may not reflect entire content of the course.

- Open Courseware Consortium

  http://ocwconsortium.org/

Blog - http://ocwblog.org/

- Connexions

http://cnx.org/
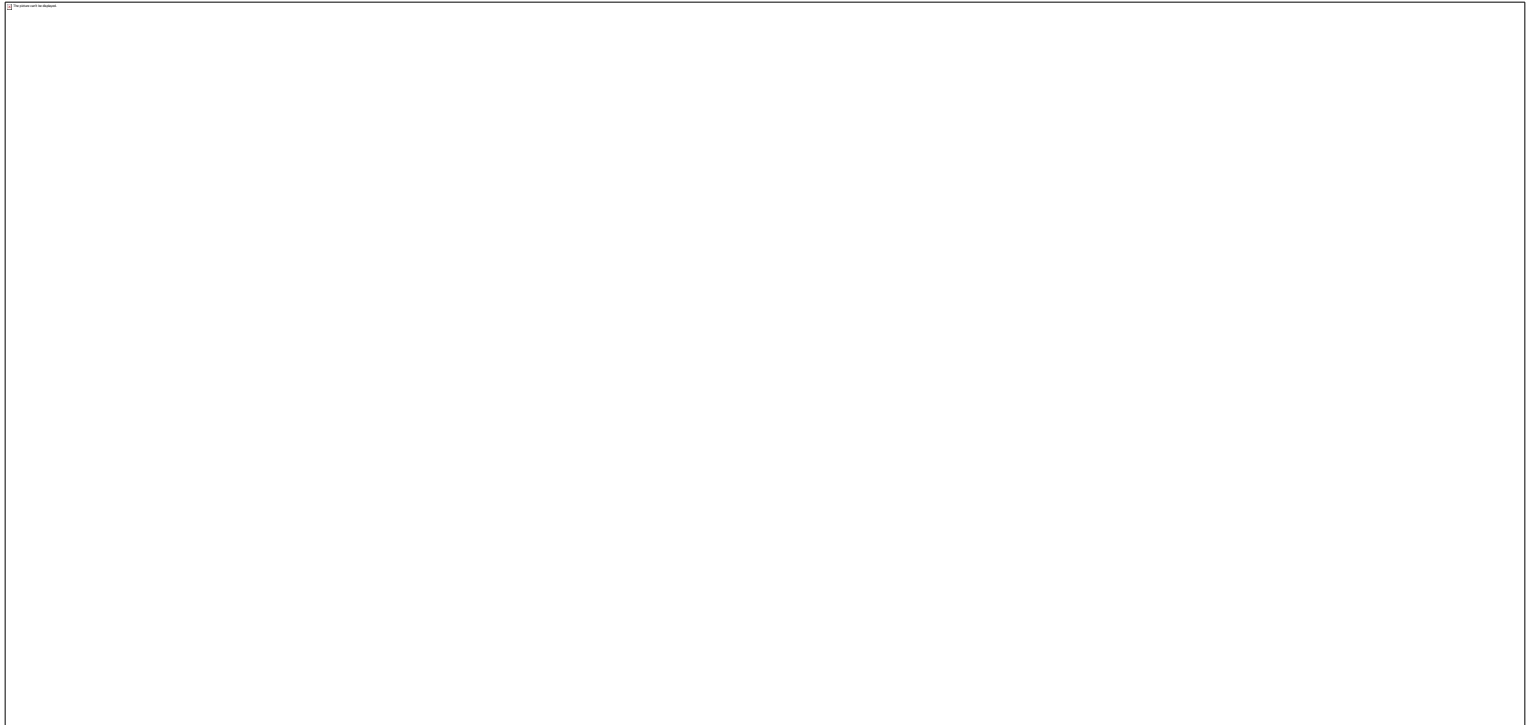
Find resources - author resources

Example - Collaborative Statistics   CNXML

http://cnx.org/content/col10522/latest/

http://cnx.org/content/m9000/latest/

- **OER Commons**

  http://www.oercommons.org

  Created by IKSME - http://www.iskme.org/

"single point of access through which educators, students, and all learners can search, browse, evaluate, download, and discuss open educational resources (OER)"

Includes review, tag features…

- Open Content Alliance

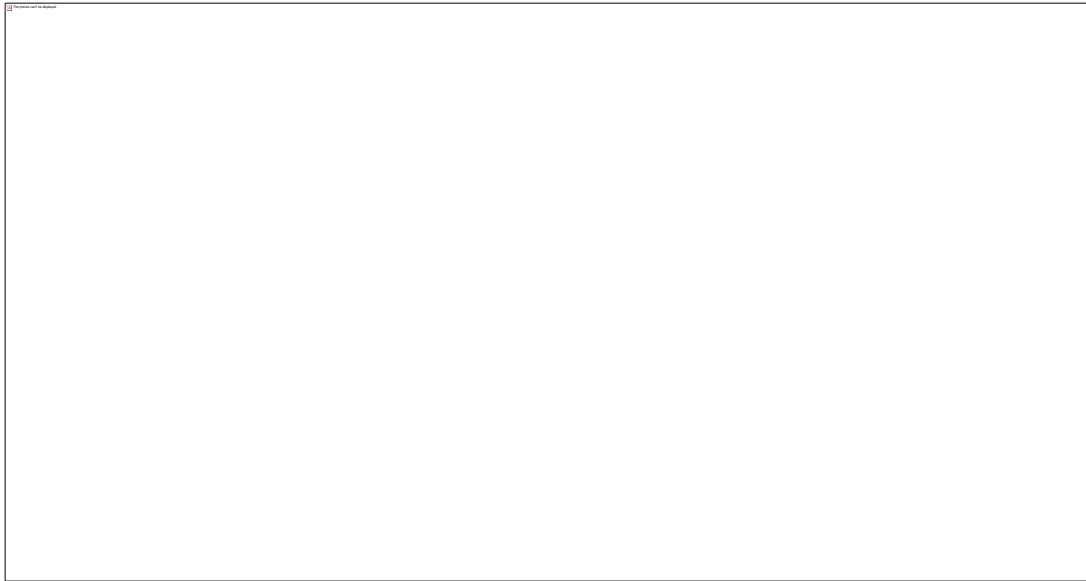http://www.opencontentalliance.org

"Unlike with commercial scan plans, there are no restrictions on public domain books scanned by OCA members. Users are not forced to use proprietary interfaces, and OCA scans are not hidden from rival search engines. Books scanned under the BLC initiative will be hosted by the Internet Archive…" http://www.libraryjournal.com/article/CA6484069.html

Internet Archive: http://www.archive.org
OurMedia: http://www.ourmedia.org/

- OpenLearn

http://www.open.ac.uk

Provides complete Open University online courses

Provides ways for participants to contribute as well as take courses

- Intute

  http://www.intute.ac.uk/
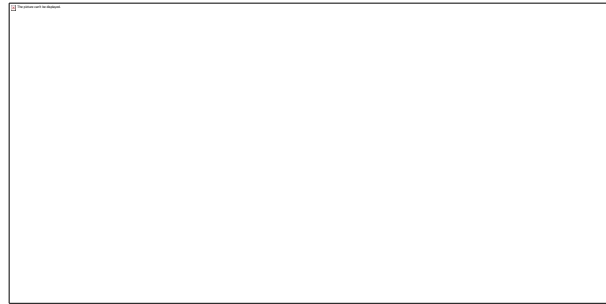
  "Intute is a free online service providing you with a database of hand selected Web resources for education and research."

- GLOBE

  http://globe-info.org/
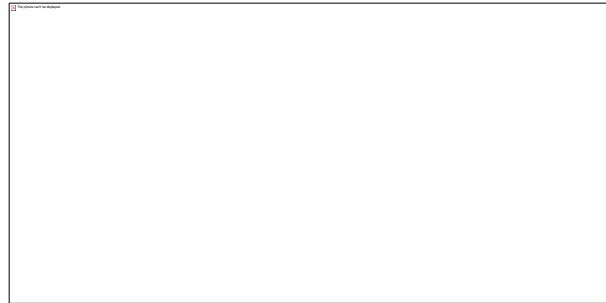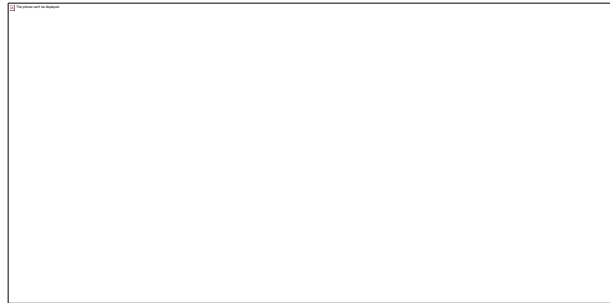
ARIADNE
edna Online
LORNET
MERLOT
NIME

The Funders

http://jime.open.ac.uk/2008/03/jime-2008-03.html
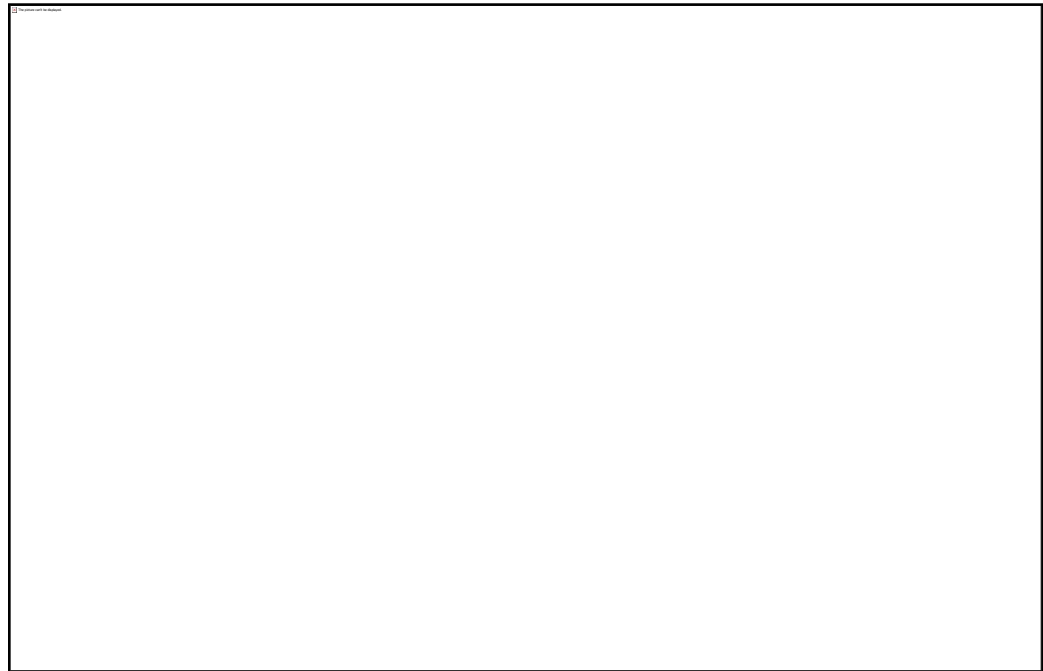
- Sustainable OERs…
    - Content only the beginning
    - Consideration of the community essential
    - Entails not just a mechanism but a *model* of production, use, distribution
    - Existing structures (centralized, financially oriented, hierarchical) are often *barriers* to OERs
    - We feel this in our communities

- ## Hewlett Foundation

http://www.hewlett.org/Programs/Education/OER/

- UNESCO OER projects

  http://oerwiki.iiep-unesco.org

- Commonwealth of Learning

http://www.col.org/colweb/site

- learning for development
- teacher training programs
- content initiatives

Funding Models

Numerous funding models…

these vary mostly by *source*

but models have other implications

- who authors (whose point of view)?
- who controls (funds, resources)
- who distributes?

• Endowment Model

- Single large grant
- Managed by fund-holder
- Funding via interest

Eg. Stanford Encyclopedia of Philosophy

$US 3 to 4 million fund
$190,000 budget

- **Membership Model**

- Organizations join consortium
- Members pay fees
- Projects managed collectively

Eg. Sakai
Eg. MERLOT
Eg. OCW Consortium

• Donations Model

- Donations solicited from public
- May involve project membership
  (by individuals)
- Project manged by a board

Eg. Wikipedia foundation
Apache foundation

- Conversion Model

"In the Conversion model, you give something away for free and then convert the consumer of the freebie to a paying customer."

Sterne and Herring (2005)

- # Contributor Pay

- Creators of resources pay for 'publication'

- Resources are managed by the publisher

charges for this process will be met by funding bodies, such as the Wellcome Trust - 1% of their annual spend.

Eg. Public Library of Science
But also
Think about YouTube, Blogger, Flickr (pro)

• Sponsorship Model

- The 'public television' model

- Resources are 'sponsored' by donors

- Usually in return for sponsorship spot

→ Advertising….?

Examples
MIT iCampus Outreach Initiative
(Microsoft) (CORE, 2005)
Stanford on iTunes project (Apple)

- Institutional Model

Examples: OpenCourseWare
            Open Knowledge Initiative
            OPLC
All from MIT

- Sponsoring organization pays costs

- Considered part of its 'mandate'

  It usually manages it, too… and there may be side-benefits

- # Government Funding Model

- Government funds

- Usually managed by arms-length board (but not always)

- Intended to serve government objectives…

  Examples
  OLPC (again)
  Canada SchoolNet
  Universities, colleges, schools

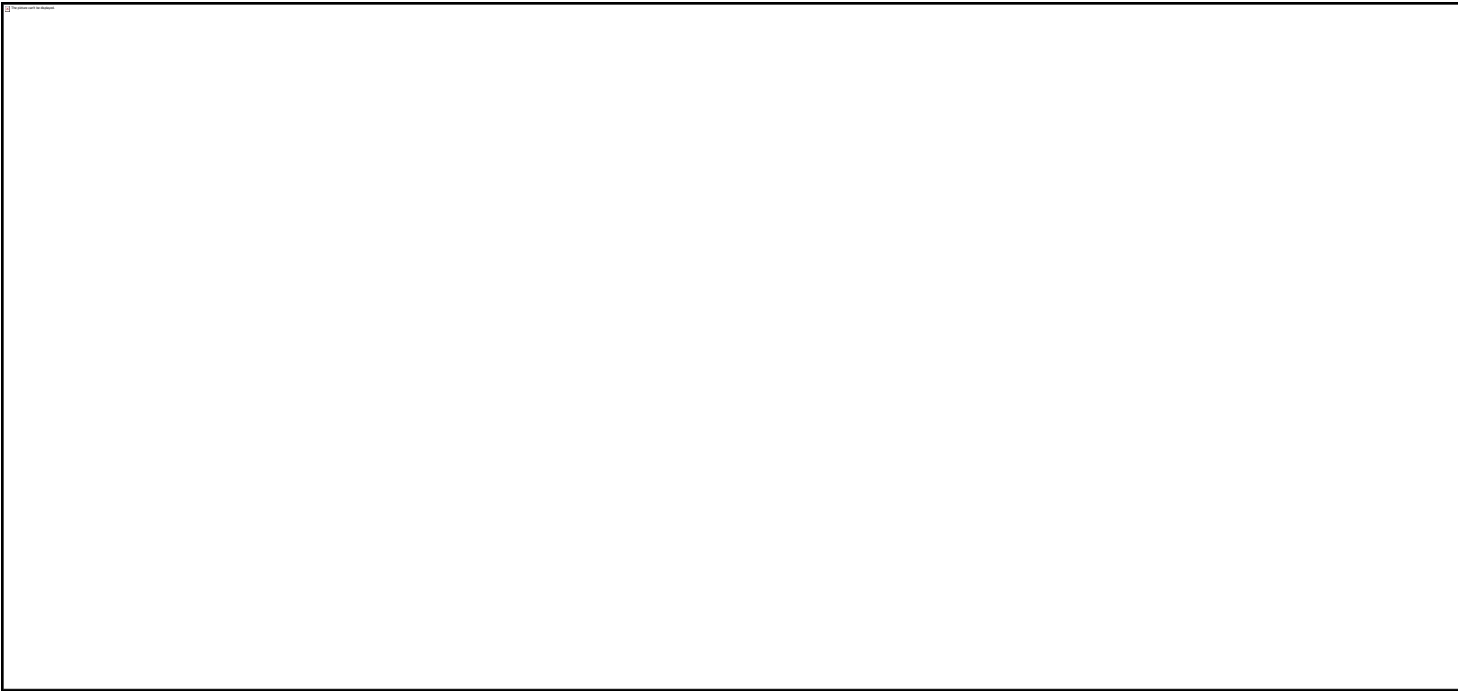# OERs 'In The Wild'

• YouTube

 http://www.youtube.com/

http://www.youtube.com/watch?v=sdUUx5FdySs

- Flickr

- Google

  http://www.google.com/advanced_search?hl=en

- Wikipedia

  http://en.wikipedia.org

The picture can't be displayed.
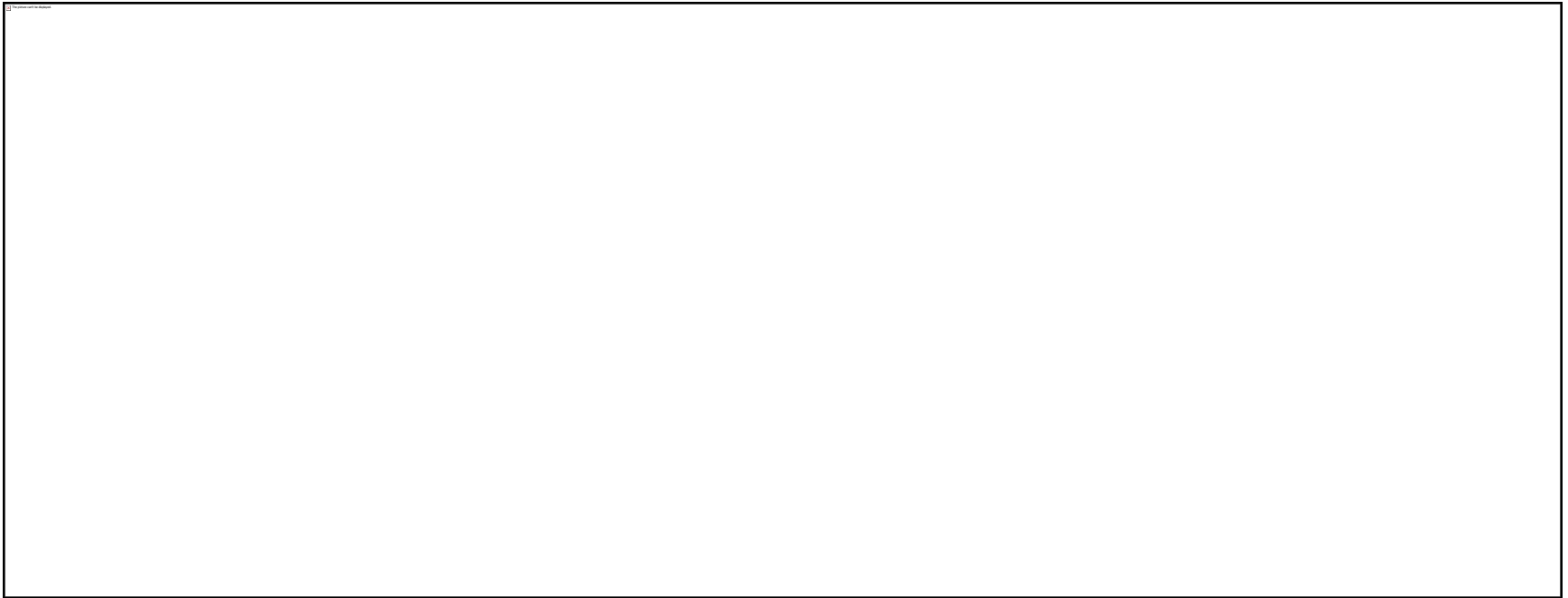
- # Wikiversity

http://en.wikiversity.org/wiki/Wikiversity:Main_Page

The picture can't be displayed.

- Curriki

 http://www.curriki.org

The picture can't be displayed.

- WikiEducator

  http://www.wikieducator.org

- iTunes U

http://www.apple.com/education/guidedtours/itunesu.html
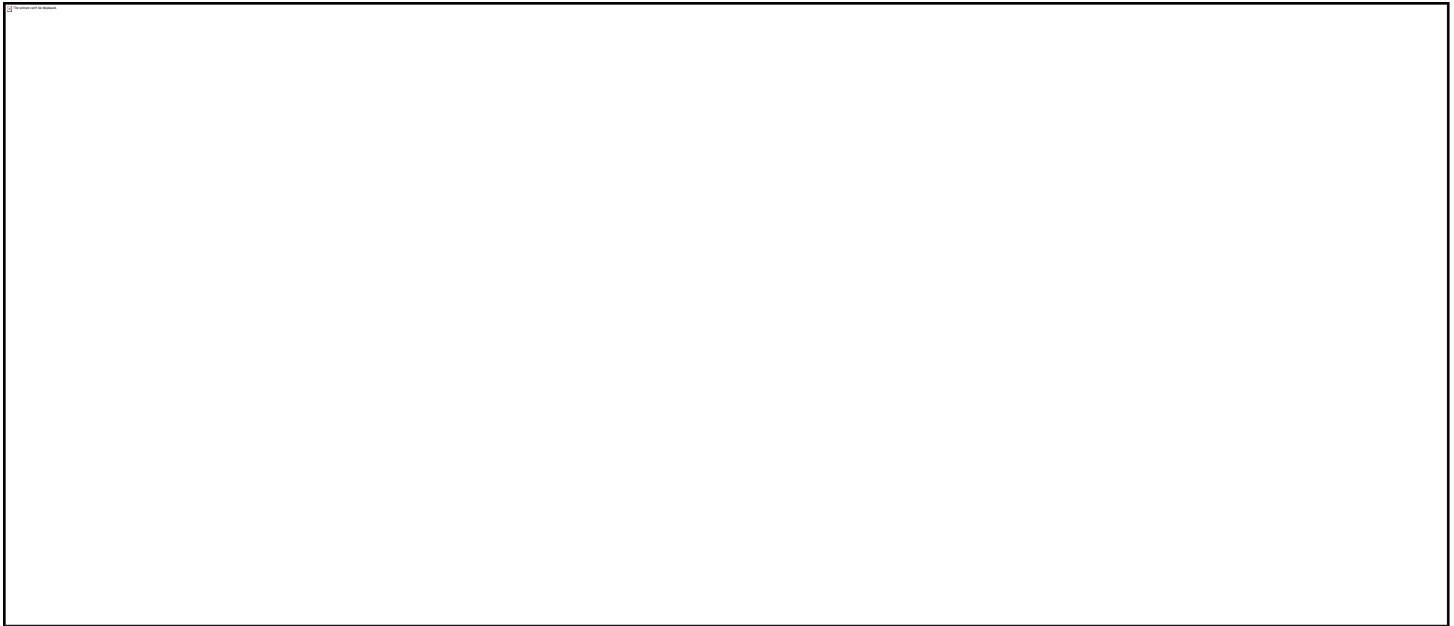
Dimensions of Openness

- Technical
  - Driven by financial, other considerations, eg. Learning objects
  - 'Free Use' vs 'Adapt and Localize'
  - Access and usability – eg., browse, search, data-mining
  - Impact on 'open' – eg., federations

- Content Models
  - 'Sustainable' often means 'localizable' and tantemount to 'reusable'
  - Hence, requires integration – which in turn requires semantic similarity
  - Questions of licensing, etc.

- **Provider / Consumer**
  - Content may reflect values of the provider – cultural imperialism
  - Shift in emphasis toward collaborative development
  - Sharing in all directions, north and south
  - Hence, need to think of OERs with respect to the community that uses them

- Staffing
  - Traditional: 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 Organization
  - Community model – emphasis on individual members (eg. OSS)
  - Emergent model – emphasis on process (eg., Slashdot, eBay)
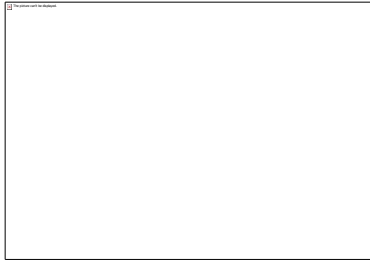 - Producer-consumer model vs co-producer moder – Web 2.0

- **Workflow**
  - 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

Infrastructure Initiatives

- **Open Archives Initiative**

  http://www.openarchives.org/

  "develops and promotes interoperability standards that aim to facilitate the efficient dissemination of content."

OAISter - http://www.oaister.org/

DSpace - http://www.dspace.org/

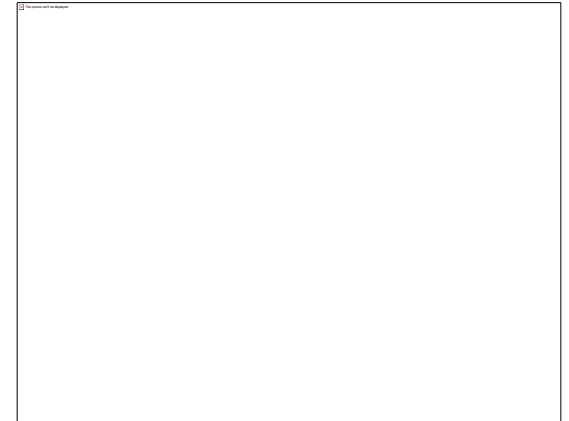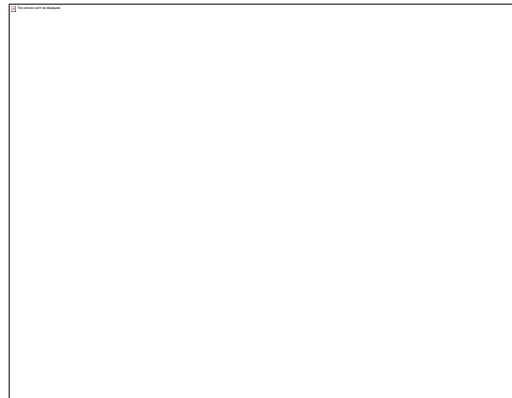PubMed - http://www.pubmedcentral.nih.gov/about/oai.html

- ## SWORD

(Simple Web Service Offering Repository Deposit)

"The project aims to improve the efficiency and quality of repository deposit and to diversity and expedite the options for timely population of repositories with content whilst promoting a common deposit interface and supporting the Information Environment principles of interoperability."
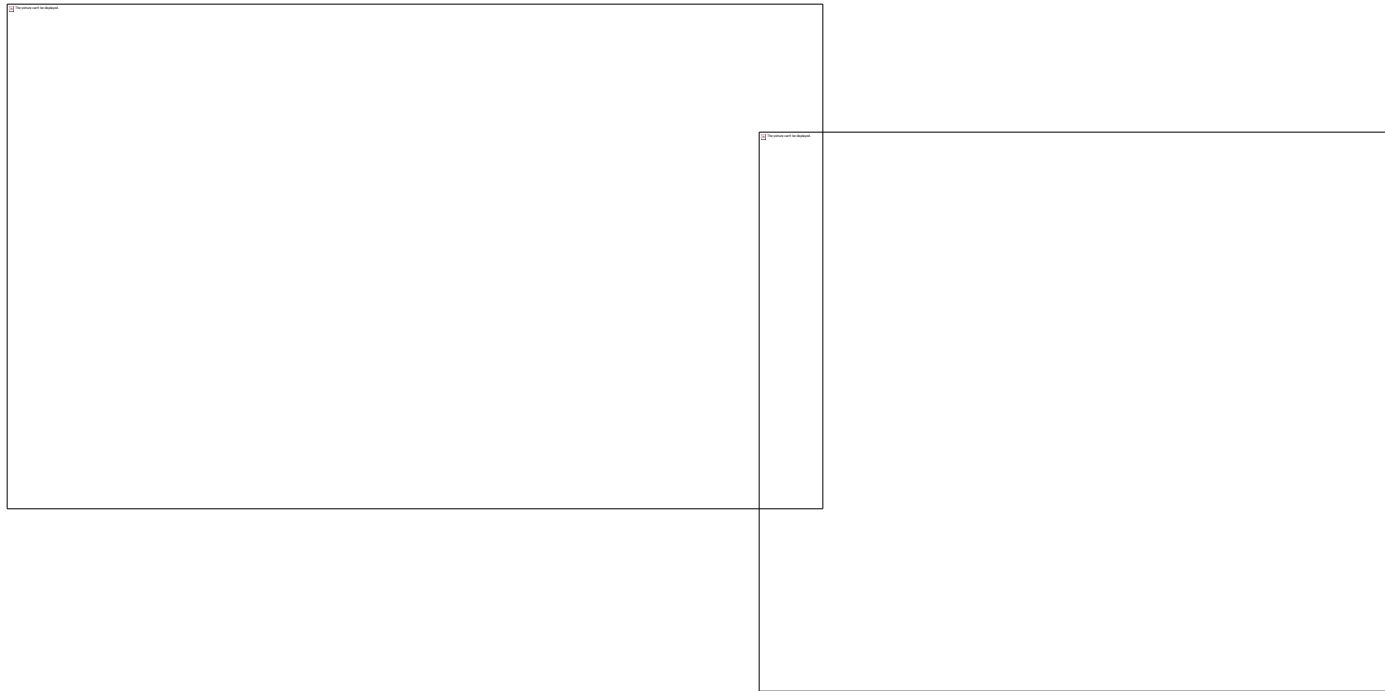
Public Knowledge Project

- http://pkp.sfu.ca/
- University of British Columbia and Simon Fraser University

- Open Journal System

http://pkp.sfu.ca/?q=ojs

http://www.hhrjournal.org/index.php/hhr

http://www.medisur.sld.cu/index.php/

- Open Conference System

http://pkp.sfu.ca/ocs

http://imrf.mcmaster.ca/IMRF/ocs/index.php/meetings/2008/
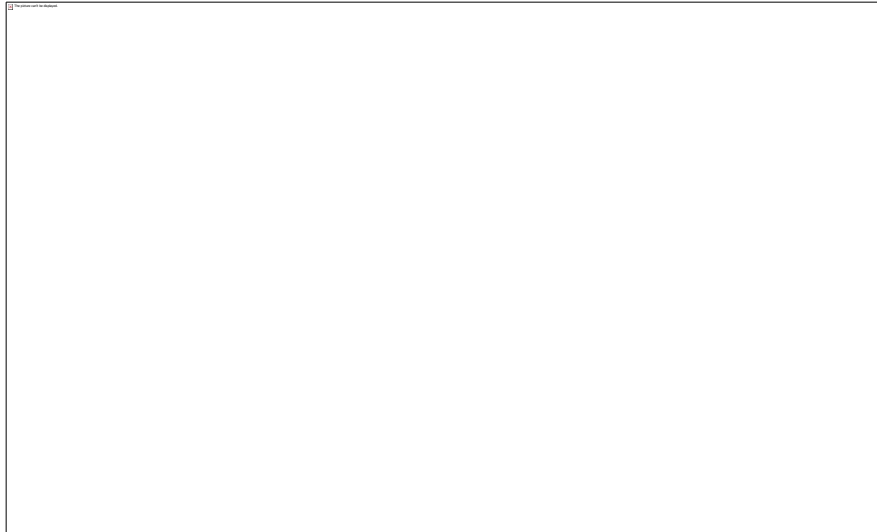
- Open Archives Harvester

  http://pkp.sfu.ca/?q=harvester

http://carl-abrc-oai.lib.sfu.ca/
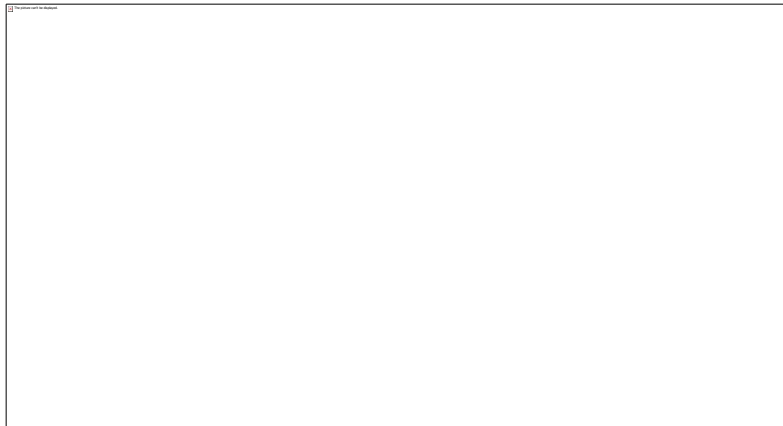
Barriers

- Who gets funded (indiv. vs inst.)
- Scale of funding (large vs. small)
- Type of project (producer, centralized)

Barriers (2)

- Overhead (eg., licensing)
- Justification, quality (= overhead)
- Narrow view of 'sustainable' (= money, = commercial?)
- Access / control

Resources

- OER - The Way Forward

  http://oerwiki.iiep-unesco.org/index.php?title=OER:_the_Way_Forward

- UNESCO OER Toolkit

  http://oerwiki.iiep-unesco.org/index.php?title=UNESCO_OER_Toolkit

- Hewlett OER Report

  http://www.hewlett.org/Programs/Education/OER/OpenContent/Hewlett+OER+Report.htm

- JIME - Researching Open Content

  http://jime.open.ac.uk/2008/

- Open Educational Resources at OECD

  http://oer.wsis-edu.org/oecd-oer.html

- OER handbook for Educators

Resources (2)

- IRRODL - Secial Issue on OERs

  http://www.irrodl.org/index.php/irrodl/issue/view/38

- Learning to Share - T.H.E.

  http://www.timeshighereducation.co.uk/story.asp?sectioncode=26&storycode=409049&c=2

- 100 Open Access Journals for Educators

  http://www.onlinecollege.org/2009/11/11/100-excellent-open-access-journals-for-educators/

- UNESCO - Access to OERs

  http://oerwiki.iiep-unesco.org/index.php?title=Access2OER/Contents

- Open Educational Resources at OECD

  http://oer.wsis-edu.org/oecd-oer.html

- OER handbook for Educators

  http://wikieducator.org/OER_Handbook/educator_version_one