



synergies

The Canadian Information Network for  
Research in the Social Sciences and  
Humanities

<http://www.synergiescanada.org>



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*“Synergies is a national project . . . whose intent is to provide a platform for the potential transformation of the Canadian scholarly record.”*

*(Devakos and Turko, 2007)*



# Background

- A national project funded by CFI, with matching contributions from provincial and other agencies
- In Alberta, our matching comes from the Alberta government, vendor in-kind, and “in-cash” matching from the libraries
- The project is four years, beginning in 2007



# Synergies Goals

- Build capacity for online publishing and scholarship in the Social Sciences and Humanities
- Provide access to peer-reviewed journals, data sets, theses, conference proceedings and scholarly books



# Synergies Goals

- Through common standards and interoperability mechanisms
  - Provide a platform for access to publicly funded research
  - Build a technical infrastructure that will support digital preservation



# Synergies National Partners

- University of New Brunswick
- Université de Montréal
- University of Toronto
- University of Calgary
- Simon Fraser University



# Synergies Services

Publishing Services Workflow Self-publishing tools (all scholarly genres and data)	Dissemination Services Interoperability Link to bibliographic databases	Long-term Preservation and Permanent Referencing
General public Web interfaces Search tools, etc.	Digital Warehouse Storage, Distribution and Archives	Copyright
Research-specific Web interfaces Data mining, etc.	Metadata Preparation and Distribution	e-Commerce? Individuals or Institutions

# Synergies Prairie Node

- University of Calgary
- Athabasca University
- University of Saskatchewan
- University of Winnipeg



# Research Infrastructure

- OJS software for the production of online journals
- Use of PKP software suite for additional services
- Integration with new version of Erudit software
- Federated and interoperable content



# Services for journals

- Provision of the infrastructure to move to online publication
- Developing tools to foster sustainable long term business models
- Researcher programmable interfaces
- Text and graphical results displays



# Preservation Program Components

- Persistent identification
- Article linking
- Preservation



# Persistent Identification

- For the platform to be trustworthy, we need to:
  - be able to find a resource (Persistent Identification)
  - view the resource once we've found it (Perpetual Access)



# Persistent Identification

- Excellent report from LAC:  
*“Persistent Identification of Digital Resources: Environmental Scan”*, February 2008
- No acknowledged standard in Canada yet
- Persistence is achieved through
  - An identification scheme for digital documents
  - Services for resolution for URLs
  - Policy related infrastructure that coordinates name spaces and identifiers (Knowledge Base)

# Article Linking

## (URL Resolution)

- Must:
  - Use the Synergies Persistent Identifier
  - Enabling links between any type of document to the full text of its bibliographical references
  - Use the Identifier to bring together all indexed documents that cite a document
- Should:
  - Ability for regional nodes to view and update knowledge base
  - Simple text searching of the knowledge base using a citation

# Digital Preservation

*“Digital preservation combines policies, strategies and actions to ensure access to reformatted and born digital content regardless of the challenges of media failure and technological change. The goal of digital preservation is the accurate rendering of authenticated content over time.”*

*ALA Association for Library Collections & Technical Services, Preservation and Reformatting Section,  
June 24, 2007*



# Preservation Issues

- What to preserve?
- Multiple formats
- Emulation - vs - format migration
- Is a surrogate a document?
- Life cycle management
- Copyright

# Preservation Program

- A distributed network of repositories at the Synergies libraries
- Trusted digital repositories using existing technologies (LOCKSS)
- Persistent Identifier technology for document location
- Newly developed digital preservation technologies



# Prairie Deliverables

- Develop a central resource for creators and institutions to support content creation
- Develop practices for building durable content through packaging standards like METS and metadata standards like PREMIS
- Create a network of persistent identifier servers to provide long term access handles
- Develop tools to build durable objects, capturing context and interrelationships



# Prairie Deliverables

- Establish secure storage for content
  - Develop model for establishing a trusted digital repository (OAIS model)
  - Create/identify plugins for common platforms like DSpace and OJS to preserve content and ancillary materials
  - Deploy a closed LOCKSS network for Synergies nodes



# Prairie Deliverables

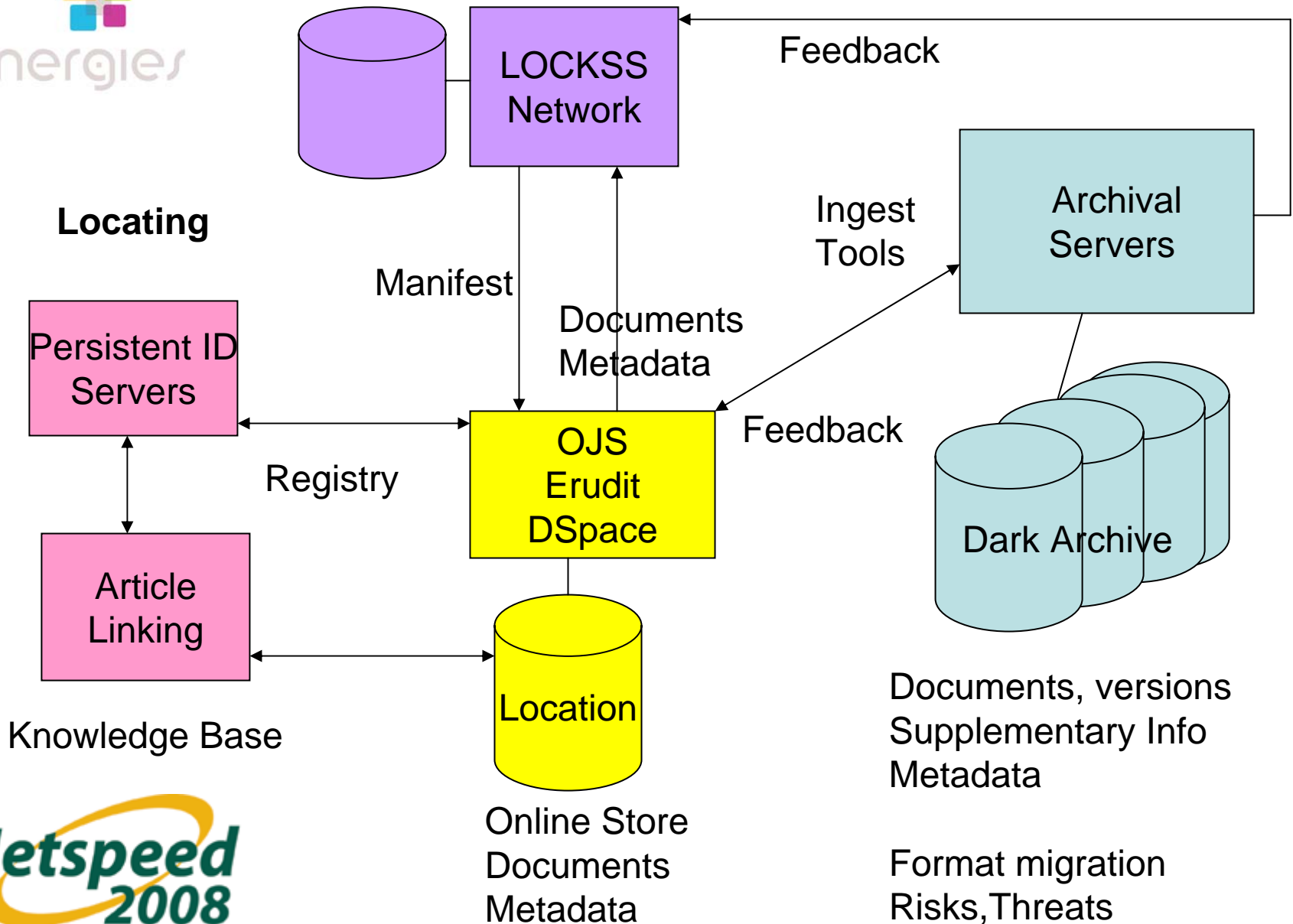
- Ensure future accessibility
  - Establish a technology watch system to monitor key formats, applications and standards
  - Identify and/or develop tools to aid in place migration of content, including distributed migration





## Perpetual Access

## Preservation



# Challenges

- Attracting journals and expanding our publishing program
  - Working with University of Calgary Press and the publishing programs at partner institutions
  - Campus Scholarly Journals Interest Group providing feedback
  - Developing policies for digitization of back issues . . .

# Challenges

- Developing a research program around Synergies
  - Working with faculty members to develop plans
  - Integrating with other research proposals
  - Meeting CFI guidelines for advancement of Canadian research, training of HQP, etc.



# Challenges

- Sustainability
  - Technical support
  - Software licensing issues
  - Apache –vs- Open Source
  - Governance
  - Building the business model



# Results

- More Canadian SSH journals online
- Variety of other scholarly output (data files, theses, monographs, conference proceedings) online
- Collaborative national technical infrastructure
- New open source software
- New collaborations within and among institutions
- Digital preservation strategy



# Results

- New research into bibliometrics, usability text processing, digital preservation, research behaviour by discipline
- Business plan for sustainability
- More robust digital environment to support research and scholarly communication



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