LORE: A Compound Object Authoring and Publishing Tool for Literary Scholars based on the FRBR

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Open Repositories 2009

Overview

LORE: Literature Object Reuse and Exchange

- Background
- Objectives
- Implementation and Demo
- Relationship Ontology
- Applications
- Future Work

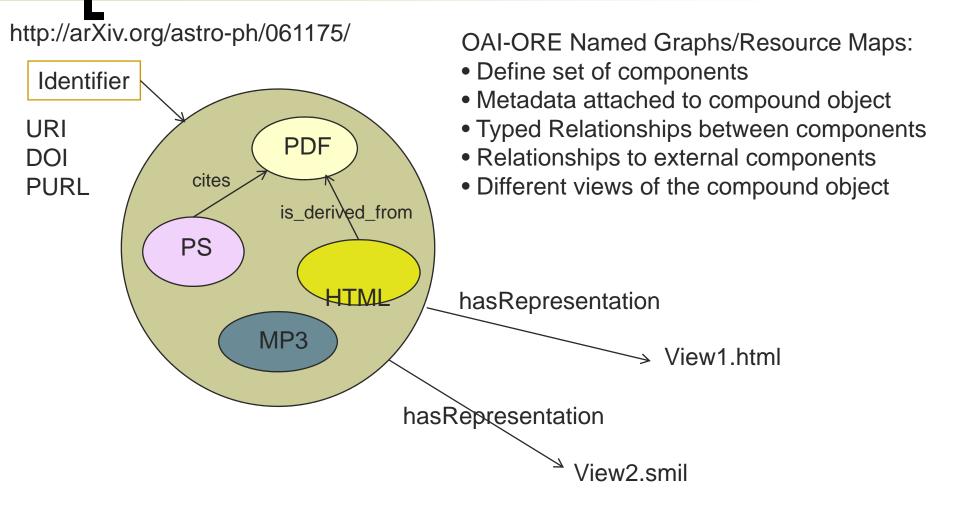
Background

- Open Archives Initiative Object Reuse and Exchange (OAI-ORE)
- International Federation of Library Associations and Institutions (IFLA) Functional Requirements for Bibliographic Records (FRBR)

OAI-ORE

- Collaborative initiative focused on developing standardized, interoperable, machine-readable mechanisms to express compound objects on the web
- Resource maps
 - express a set of resources that are aggregated by a compound object
 - express metadata and relationships between aggregated resources
 - may be published as RDF Named Graphs
- http://openarchives.org/ore/

ORE Compound Object

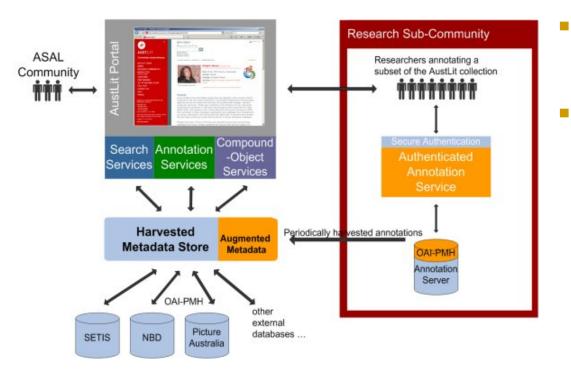


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IFLA FRBR

- Reflects the conceptual structure of information resources
- FRBR Entities:
 - Products of intellectual or artistic endeavour (Publications)
 - Work
 - Expression
 - Manifestation
 - o Item
 - Responsible Persons and Organisations
 - Subjects (concepts, objects, events, places)

Aus-e-Lit



- LORE was developed as part of the Aus-e-Lit project
 - Funded by DEST through the National eResearch Architecture Taskforce (NCRIS 5.16 NeAT)
 - Collaborators:
 - The University of Queensland, ITEE eResearch
 - o AustLit
 - Association for the Study of Australian Literature (ASAL)
 - Australian National Data Service (ANDS)
 - Australian Research Collaboration Service (ARCS)



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AustLit

- Partnership between the National Library of Australia and twelve universities
- **Research** activities focused around research communities
- Data model based on **IFLA FRBR**
 - + events (ABC Harmony) \bigcirc
 - + specialized fields for 0 research communities

A	QUICK SEARCH
AUSTLIT The Australian Literature Resource	GO Guided Search Advanced Search Thesaurus Search
AUSTLIT TODAY AROUT	AUSTRALIAN BOOK HISTOR AND PRINT CULTURE
RESEARCH COMMUNITIES	AUSTRALIAN MAGAZINES AUSTRALIAN POPULAR THEATRE
FEACHING AUST. LIT. NEWSLETTER DCT /NOV 2008	BANNED IN AUSTRALIA BIBLIOGRAPHY OF
SUBSCRIBE FREE BROWSE	AUSTRALIAN LITERATURE BLACK WORDS
SET UP AN EMAIL ALERT FULL TEXT	CHILDREN'S LITERATURE DRAMA
CONTACT US HELP	MULTICULTURAL RESPONSES TO 'ASIA'
PRAISE	REVERSE DIASPORA SA WOMEN
AustLit is a not-for-profit education and information resource	TASMANIA WESTERN AUSTRALIA
Database size: - 614,793 works - 108,719 agents - 26,798 subjects Last amended - 27 Nov 2008	WRITING THE TROPICAL NORTH
Users are advised that AustLit contains names and images of people who have died.	
Logged in as UQ library.	
AustLit Feedback	

RESEARCH COMMUNITIE

WELCOME TO AUST

A major aim of AustL into Australia's literat

AustLit Research Cor groups, to explore, d aspects of those cult

Outcomes from these searchable filtered se specialist research in projects have been fu grants or other funding

AustLit subscribers of limit their searches to defining a scope in th through Guided Sea

STOP PRESS!! From communities will be AustLit newsletter for

CURRENTLY SUPPO

Australian Book Histo

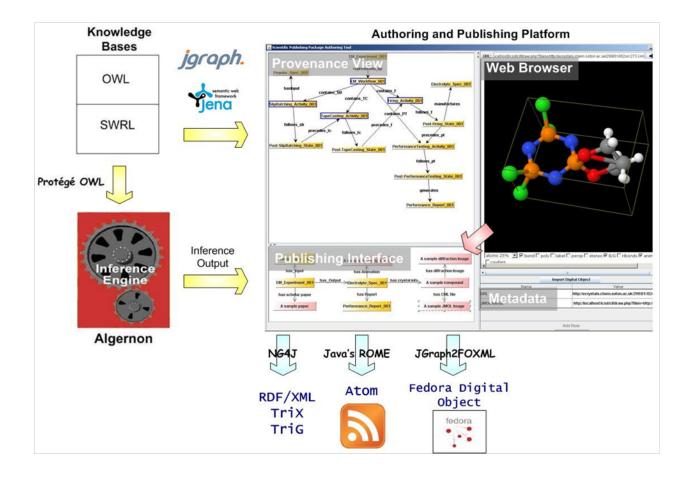
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		GO	
		Guided Search	
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The Australiar	n Literature Resource	WORK DETAILS	
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attion. Lattion	in, rionij (ontri namo: za		
General	Snakes & serpents	Isolation (Emotional & social)	
subjects:	Country life	Drovers	
	Women	Families Fear	
	Dogs Courage & bravery	Bush	
Influence on:	[Untitled] - Crisp, Louis		
Related To:			
Related To.	The Drover's Wife short story satire humour - Moorhouse, Frank (1980)		
	The Drover's Wife SHORT STORY SATIRE - Jefferis, Barbara (1980)		
	The Drover's De Facto SHORT STORY - Gambling, Anne (1986)		
	The Drover's Wife's Dog SHORT STORY SCI-FI - Broderick, Damien (1991)		
		nd the Drover's Wife DRAMA - Lawson, Henry; Morritt, Stewart (2005)	
This work has	s appeared in at least 4 d	erent versions: FRBR Expre	ession
1.		on include the following 32:	
		no.649 23 July 1892 PERIODICAL ISSUE	station
	(pp.21-22)		
	Find the full text a	University of Queensland Library	
		rose and Verse selected work poetry prose short story	
		enry (birth name: Larsen, Henry (Lawson)) (a.k.a. H. L.)	
	Sydney, New Sou (pp.26-39)	i Wales : Louisa Lawson, [1894].	OR 09

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Related: SCOPE



Objectives

- Development of a light-weight in-browser tool to enable Australian literary scholars to
 - collaboratively author scholarly compound objects using a standardized format;
 - attach metadata to objects to facilitate their discovery;
 - publish objects in open-access repositories to encourage sharing and reuse;
 - document and visualize the lineage of derived intellectual products.

LORE Implementation

- Mozilla Firefox extension
 - AJAX Web 2.0
 - XUL: XML User Interface Language
- Sesame 2 data store
 - Named graphs
- Export to Fedora objects
- Metadata and relationship terms configured from OWL ontology

LORE Features

- Add resources to the resource map from within the web browser using context menus or LORE toolbar
- RDF/XML and Graphical Views
- Configurable domain ontology
 - Assert relationships between resources using ObjectProperties from the domain ontology
 - Attach metadata to resource map, aggregation, resource or relationship using *DataType* properties from the domain ontology, or terms from Dublin Core, FOAF, ORE
- Load, edit and save resource maps
- Browse/Search to discover related compound objects
- Interactive resource node previews

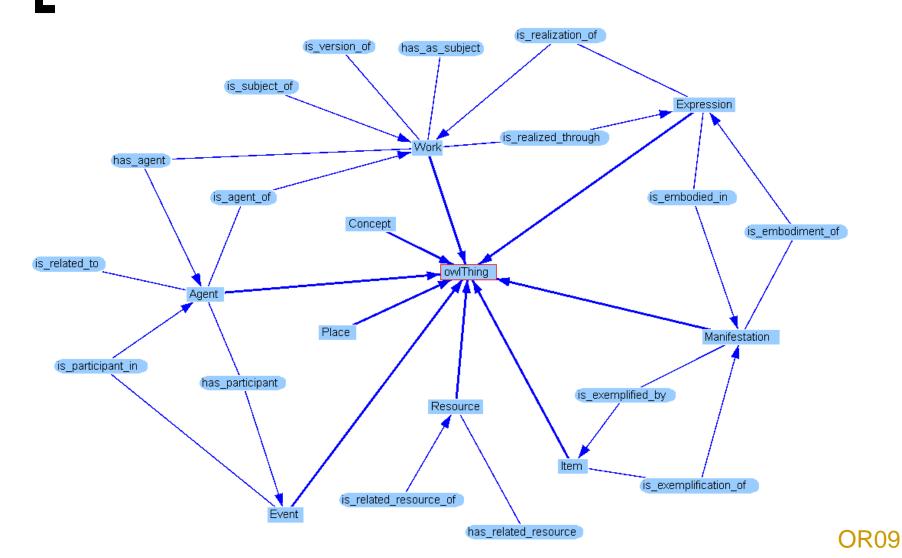
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Sources and Properties	Several Annotations Compound Object Text mining	
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Demonstration

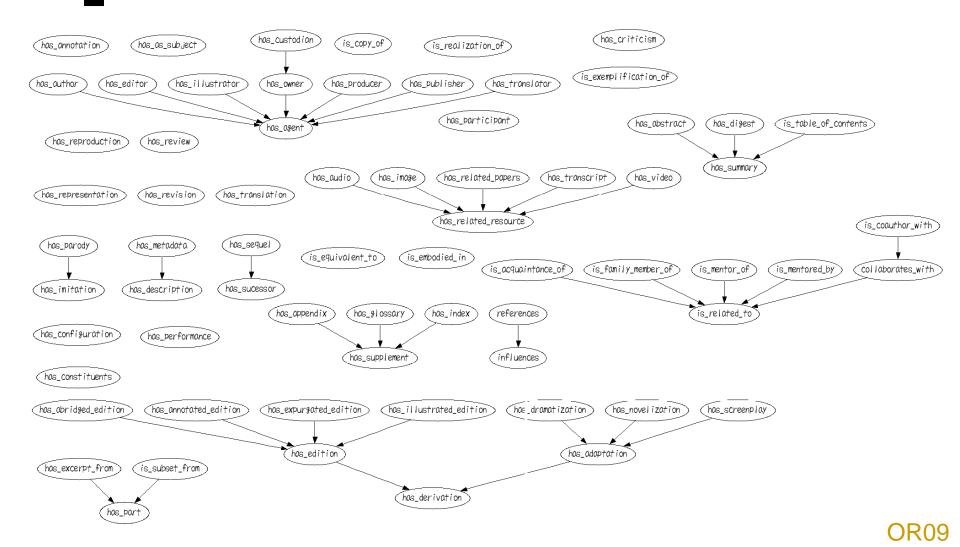
Relationship Ontology

- Created from the AustLit data model
 Based on IFLA FRBR
- Extended to include
 - Relationships between people
 - e.g. collaborates_with, is_family_member_of
 - Relationships between digital resources
 e.g. has_image, has_audio, has_video
 - Relationships for research and teaching
 - e.g. has_criticism, has_summary

Relationship Ontology (Subset)



Relationship Hierarchy



Applications

Research

- Scholarly Editions
 - Compound objects encapsulating different versions of a text, annotations on the text and scholarly commentary
- Research Trails
 - Recording research sources and notes
- Lineage
 - Tracking the lineage of derivative works and ideas
- Teaching
 - Relating disparate resources around a common theme

Case Study Considerations

- Limitations with:
 - Non-information resources
 - Local object identifiers
 - Non-persistent URIs
 - Generic visualisations
- Complexity of ontology
 - Specialized ontologies
 - Semantic hints/checks in the UI

Current developments

- Customisable graphical views
 - o SMIL
 - o Timeline
 - o maps
- More specific relationship ontologies
- Improving Fedora support

Future Work

- Rule engine to infer additional relationships
- Ontology discovery through Metadata Schema Registry
- Attachment of Creative Commons and other licenses



Aus-e-Lit

Collaborative Integration and Annotation Services for Australian Literature Communities

Project Team

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Dr Roger Osborne, Project Manager

Anna Gerber, Senior Programmer

Chris Davoren, Programmer

The Aus-e-Lit project is building on the eResearch infrastructure for Australian literary studies at AustLit: The Australian Literature Resource (<u>www.austlit.edu.au</u>). Aus-e-Lit is funded by the National Collaborative Research Infrastructure Strategy (NCRIS) through the National eResearch Infrastructure Task Force (NeAT), and by the University of Queensland.







Questions?

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http://itee.uq.edu.au/~eresearch



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