OAI-ORE Specification Roll-Out

OAI-ORE experiments at the University of Illinois Library at Urbana-Champaign

Timothy W. Cole (t-cole3@uiuc.edu)
Grainger Engineering Library Information Center
University of Illinois at Urbana-Champaign

4 April 2008
University of Southampton, UK
Experiments

1. **DLF Aquifer Asset Actions in ORE**
   Typed, actionable URIs for various (sometimes distributed) *views* of an object
   (see: *Chavez, et al., D-Lib Magazine 12 (10) [Oct. 2006]*)
   Application: [American Social History Online Portal](https://www.dlib.org/dlib/october2006/chavez/200610chavez.html)
   Tom Habing, Bill Ingram, Esha Datta, Jody Deridder, … & Aquifer Tech WG

3. **Using ORE Resource Maps to support scholarly annotation of digitized books**
   (in collaboration with Northwestern; an ORE experiment funded by the Andrew Mellon Foundation)
   - Use ORE to manage granular annotations over multiple formats and across a range of bibliographic or lexical scopes
   - Focus on literary analysis use cases & projects (e.g., MONK Project)
   - Tim Cole, Bill Parod, Michael Norman, MJ Han, Bill Ingram, Wei Zhang
different uses require different views:
thumbnail, image in context, full image view, metadata, ...
Aquifer asset action semantics -- defining classes of resources and sub-classes of "resource actions"

For example

actionGroups (incomplete list):

- default
- basicImage, layeredImage, addressableImage, …
- viewStructuredText, getStructuredText, viewImageText, getImageText, …

Members of default actionGroup class must support:

- getPreview
- getLabel
- getDCRecord
- getDefaultContent
- getWebView
- getAssetDefinition (reflexive)
mapping asset action semantics to OAI-ORE resource maps
(current draft)
Aquifer asset action applications

- U. of Virginia Collectus Tool (in production)
  - Currently uses old-style asset action package in XML

- Zotero custom translator for Aquifer (in development by NYU)
  - Checks resources as imported into Zotero for associated asset actions
  - If found, prompts user to select URI(s) for preferred views(s)
Scholarly annotations for individual & small group collaborative research

In collaboration with Northwestern University Library

- Annotation is broad domain – we’re looking at annotation as scholarly commentary or elaboration at level of pages, paragraphs, lemmas.
  - Current models & literature – Pliny (John Bradley, King’s College), Electronic Variorum Editions (e.g., for Quixote, Eduardo Urbina [TAMU]), Google Book Annotation, OCVE (Online Chopin Variorum Edition), …
  - A number of issues remain – (see forthcoming report of the Eranos WG)

- Task: investigate whether ORE can help address a subset of needs --
  - Managing annotation targets at arbitrary granularity
  - Facilitating annotation targets that are format-independent and persistent
  - Enabling annotations over bibliographic and lexical scopes (think FRBR, …)
  - Enabling exchange / interoperability of annotations in a standard way

- Content: digitized books (Open Content Alliance & Wright American Fiction)

Timothy W. Cole (t-cole3@uiuc.edu)
Candidate ReMs for a digitized book
(current draft, some detail omitted, including sequence of page images, relationships between page images and XML, technical metadata)
The adventures of Tom Sawyer

broom, and so she needed breath to punctuate the punches with. She resurrected nothing but the cat.
“I never did see the beat of that boy”!
She went to the open door and stood in it and looked out among the tomato vines and “jimpson” weeds that constituted the garden. No Tom. So she lifted up her voice at an angle calculated for distance, and shouted:
“Yo-u-u Tom!”
There was a slight noise behind her and she turned just in time to seize a small boy by the slack of his roundabout and arrest his flight.
“There! I might ’a thought of that closet.
What you been doing in there?”
“Nothing.”
“Nothing! Look at your hands. And look at your mouth. What is that truck?”
“I don’t know, aunt.”
“Well, I know. It’s jam—that’s what it is. Forty times I’ve said if you didn’t let that jam alone I’d skin you. Hand me that switch.”
The switch hovered in the air the pearl was desperate.
“My! Look behind you, aunt!”
The old lady whirled round, and snatched her skirts out of danger. The lad fled, on the instant, scrambled up the high board fence, and disappeared over it.
His aunt Polly stood surprised a moment, and then broke into a gentle laugh.
“Hang the boy, can’t I never learn anything? Ain’t he played me tricks enough like that for me to

MARK TWAIN

broom, and so she needed breath to punctuate the punches with. She resurrected nothing but the cat.
“I never did see the beat of that boy”!
She went to the open door and stood in it and looked out among the tomato vines and “jimpson” weeds that constituted the garden. No Tom. So she lifted up her voice at an angle calculated for distance, and shouted:
“Yo-u-u Tom!”
There was a slight noise behind her and she turned just in time to seize a small boy by the slack of his roundabout and arrest his flight.
“There! I might ’a thought of that closet.
What you been doing in there?”
“Nothing.”
“Nothing! Look at your hands. And look at your mouth. What is that truck?”
“I don’t know, aunt.”
“Well, I know. It’s jam—that’s what it is. Forty times I’ve said if you didn’t let that jam alone I’d skin you. Hand me that switch.”
The switch hovered in the air the pearl was desperate.
“My! Look behind you, aunt!”
The old lady whirled round, and snatched her skirts out of danger. The lad fled, on the instant, scrambled up the high board fence, and disappeared over it.
His aunt Polly stood surprised a moment, and then broke into a gentle laugh.
“Hang the boy, can’t I never learn anything? Ain’t he played me tricks enough like that for me to
To create ReM for annotation requires (among other things):

1. minting URI for annotation text, etc.
2. Minting URI for image-format target
Candidate submittal ReM for a page image annotation
(some detail omitted)
To create ReM for annotation requires (among other things):

1. minting URI for annotation text, etc.

2. Minting URI for image-format target

3. Identifying targets in other formats / scopes & minting URIs for these
Enriched ReM for annotation, post-submittal processed
(some detail omitted)
Enriched ReMs for book after annotation has been submitted and processed (some detail omitted)
The adventures of Tom Sawyer

MARK

broom, and so she needed breath to punctuate the
punches with. She resurrected nothing but the cat.

“I never did see the beat of that boy!”

She went to the open door and stood in it and
looked out among the tomato vines and "Jimson"
weeds that constituted the garden. No Tom. So
she lifted her voice at an angle calculated for
distance, and shouted:

"YO-OU-u Tom!"

There was a slight noise behind her and she turned
just in time to seize a small boy by the slack of his
roundabout and arrest his flight.

"There! I might 'a thought of that closet.
What you been doing in there?"

"Nothing."

"Nothing! Look at your mouth. What's that truck?"

"I don't know, aunt."

"Well, I know. It's Forty times I've said if you
I'd skin you. Hand me that switch."

The switch hovered in the air the pen was
desperate

"My! Look behind you, aunt!"

The old lady whirled round, and snatched her
skirts out of danger. The lad flung, on the instant,
scrambled up the high board fence, and disappeared
over it.

His aunt Polly stood surprised a moment, and
then broke into a gentle laugh.

"Hang the boy, can't I never learn anything?
Ain't he played me tricks too just like that for me to

Annotating paragraphs

1. Start annotating by clicking the button labeled 'Start new annotation'.
2. With your mouse, click inside any paragraph to highlight it.
3. Once a paragraph has been selected, a form will appear. Fill out the form, and when you are finished, click 'Submit' to send or 'Cancel' to start over.

Retrieving annotations

1. Click the button below labeled 'Retrieve annotations'.
2. A list of annotations for this page will appear below.
3. Click one of the list items to view the annotation.

Analysis of eyewitness accounts suggests that Twain was eating toast with strawberry jam when
he wrote this scene.
To do:

- Define ReMs to support annotation across various scopes
  - In particular across different editions of same work
  - In particular across different digitization instances of same edition
  - In particular across subset of works by same author

- Define ReMs to support annotation at level of lemma
  - Will use morphadorner tool from NWU (WordHoard, MONK)

- Investigate implementing this all in Fedora
  - Use APP (SWORD profile?) to submit initial annotation ReM