Mark Leggott, University of PEI
Open Repositories 09
"The coolest thing to do with your data will be thought of by someone else."
UPEI Landscape

- Admin/Learning/Research - common framework
- Steward data, evolve systems/interfaces
- Develop local capacity - XML/RDF/Semantic
- Institutional support for OS very strong - Drupal, Moodle, Evergreen, CUFTS, Djatoka
- HW systems centralized, managed, leveraged
- Research $$ often include HW/People for VRE
Islandora

- Drupal/Fedora module + additional components
- Drupal front-end, collaborative layer, editing
- Fedora data assets, metadata, policies
- Assume evolution/migration of both eventually
- Fedora’s architecture key to strategy - agnostic re what domain supported
Team

- Core team consists of Mark, Paul Pound (Lead Developer, Architect), Alexander O’Neil (Developer, Videographer), Peter Lux (Developer, Bioscience), Donald Moses (Design, Metadata), Grant Johnson (Drupal, Support), Melissa Belvadi (Design, Metadata)

- Additional contract developers/designers

- Additional collaborators: UNB

- OS community
Why Drupal?

- Separation of Data and Applications/Interfaces
- Easy interface branding (themes/CSS)
- Client can control look/collaboration/content/community/some functionality
- New modules provide features without much development, LDAP auth/roles one example
- Hack existing Drupal modules before new dev
- Community is huge and Web 3.0 savvy
Why Fedora?
OS philosophy and approach core to Robertson Library’s management/development

Developing OS release provides opportunity to create robust framework, strong documentation

Good educational context for dev team

Builds capacity, knowledgebase, community

All advantages of OS development
Architecture
Architecture

Drupal

Islandora

Fedora
Architecture

Drupal

- LDAP
- Groups
- Forms
- FCK
- Hooks
- ModuleX

Islandora

Fedora
Architecture

Islandora

Drupal

Fedora

LDAP
Groups
Forms
FCK
Hooks
ModuleX

LDAP

XACML Filter
Drupal Module
Rule Engine
PHP Code

Sherpa

Data
Collection Policies
Security Policies
XSLTs
Applications

- Application in all 3 landscapes, but bulk of $$ comes from Research
- Research: Virtual Research Environment
- Learning: Digital Collections, LOR
- Administration: Documents, Committees
DiscoverySpace

- Virtual Research Environment (VRE) = start
- Research collaboration/data = all disciplines
- Bulk of funding currently for Islandora development - central/researcher funds
- CAUBO Innovation Award 2009
- Basis of significant funding proposal (DiscoverySpace)
MNPL

- Marine Natural Products Lab
- Critter samples from marine ecosystems
- Test for novel pharma/nutri-ceuticals
- VRE stores critter/fraction/compound/mass spec data
- Search any data elements in any object
The Marine Natural Products Group at the University of Prince Edward Island is engaged in projects directed at the development of sustainable production methods of bioactive marine metabolites and discovering new bioactive bioproducts. The latter group includes metabolites with activities in assays of relevance to human and animal health, and with activity as antifouling agents.
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Digital Repository

Key035:

- MNPL Critter Record

Key035

Taxonomy

- Type: Sponge
- Phylum: Porifera
- SubPhylum:
- Class:
- Order:
- Family:
- Genus:
- Species:

Collection Location

- Date Collected: 20070615
- Site Name: Mangrove area North Point of Summerland Key
- Country: US
- Region: Mote Marine Lab (Summerland Key)
- Latitude:
- Longitude:
- Depth: 2 Feet

Lab

- Study Status:
- Notes:

Edit This Specimen
### Islandora

**Country:** US  
**Region:** Mote Marine Lab (Summerland Key)  
**Latitude:**  
**Longitude:**  
**Depth:** 2 Feet

**Lab**

- **Study Status:**
- **Notes:**

**Edit This Specimen**

**Fractions — Add Fraction**

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**Compounds — Add Compound**

No Compounds present for this Specimen

↓ Detailed List of Content
IslandArchives

- PEI Digital Collections other main use
- IslandArchives.ca = umbrella for all collections
- IslandLives.ca = local histories + community
- IslandScholar = institutional repository-in-a-box
- IslandNewspapers = historic newspapers
- Red & White, Island Magazine, DutchT Audio
- Partner Collections = PEI Maps, LivingArchives
A project to preserve the community history of P.E.I.

Made possible through a generous private donation, IslandLives contains community and church histories and it builds on the Robertson Library’s mission to preserve and share unique material relating to Prince Edward Island and demonstrates UPEI’s ongoing commitment to making PEI’s cultural and published heritage available to all. Welcome.

Explore By
- Title
- Place Name
- Surname
- Subject
- Organization

IslandLives Desk
- An Interview with Bill and Elizabeth Glen
- How to search for images in IslandLives

Latest Additions
- Stanhope: Sands of Time
- Bunbury: Notes on a Community
- The History of Lower Freetown

Making History
Are you an author who’s Island community history doesn’t appear in IslandLives? Would you like to contribute new works, images, or media to?
Bunbury: notes on a community; or; Blurbs on the burbs

By Statement:
Place of Publication:
  Publisher: s.n
  Date: 1994
  Language: English
  Pagination: 1 p.
  ISBN 10:
Subjects: Bunbury (P.E.I.) History
In the year 1751, a French Officer by the name of Colonel Franquet was sent to inspect the French Colonies across the Atlantic. On Isle St. Jean, Franquet travelled by barge up the East River, from Port La Joie en route to St. Peters. The flat-bottomed vessel had not proceeded very far before it was discovered that the strength of the current was setting a severe task for the six oarsmen. The barge was forced to accept the aid of a small schooner. Continuing in tow, Franquet diligently made notes of the changing scenes that presented themselves to the right and left. The uninhabited forests dominated the landscape of the early August day. The wooded vistas were described as a "waving sea of verdure throwing itself from the distant uplands down to the river banks." Scattered along the bank were small openings with log houses of the settlers, rising among the stumps of the recently felled trees, and screen, though partially hidden by overgrown vegetation.

Although this Island's Native inhabitants have lived off the land and traversed its waters for thousands of years, we cannot definitely place their settlement in Bunnery. Most certainly, however, they caused the waste of the forest, and have been responsible for the adjacent woodland. Other settlers of Bunnery small-several families established themselves in the prime of the Hillsborough River, in the early part of this century.

The earliest French settlement on the Island was made in 1720. At this time, there were settlements along the East River, though some miles east of Bunnery. In the years between 1720 and 1758, several Acadian families forged a life for themselves in Bunnery. There have been traces of these settlements seen on the Hamm...
Workflows
Abstract
The overproduction of reactive oxygen species (ROS) and reactive nitrogen species (RNS) is a common underlying mechanism of many neuropathologies, as they have been shown to damage various cellular components, including proteins, lipids and DNA. Free radicals, especially superoxide (O2^-), and non-radicals, such as hydrogen peroxide (H2O2), can be generated in quantities large enough to overwhelm endogenous protective enzyme systems, such as superoxide dismutase (SOD) and reduced glutathione (GSH). Here we review the mechanisms of ROS and RNS production, and their roles in ischemia, traumatic brain injury and aging. In particular, we discuss several acute and chronic pharmacological therapies that have been extensively studied in order to reduce ROS/RNS loads in cells and the subsequent oxidative stress, so-called “free-radical scavengers.” Although the overall aim has been to counteract the detrimental effects of ROS/RNS in these pathologies, success has been limited, especially in human clinical studies. This review highlights some of the recent successes and failures in animal and human studies by attempting to link a compound’s chemical structure with its efficacy as a free radical scavenger. In particular, we demonstrate how antioxidants derived from natural products, as well as long-term dietary alterations, may prove to be effective scavengers of ROS and RNS.
Abstract

The new thrusts in molecular logic are gathered together in this short review, while paying attention to the seeds from which these developments have arisen. The original demonstration of a few basic logic operations has now been extended to cover many of the one- and two-input varieties and even some of the three-input types. Many kinds of inputs and outputs have emerged, including various chemical species and some physical properties. The latter can include heat, light and, arguably, polarity. Reconfigurable logic has grown up to include a range of examples. Even superposable logic has proved possible with molecular systems. Numerical processors have flowered in recent years with several diverse approaches being revealed in recent years. Photochemical concepts such as photoinduced electron transfer (PET), internal charge transfer (ICT) and electronic energy transfer (EET) can be discerned among the designs in the field. (c) 2006 Elsevier B.V. All rights reserved.
Development

Islandora Fedora-Drupal module

Quick links:
- Islandora home page at Fedora Commons
- Islandora Guide
- Google Group for Islandora support and discussion questions

Robertson Library is releasing the their Fedora-Drupal module Islandora as opensource. There is a Islandora project hosted by Fedora Commons [here](https://example.com).

The Islandora module allows Drupal users to view and manage digital objects stored in Fedora.

Features

Islandora lets you display your digital collections integrated directly in your Drupal website.

Customizable Collection View
Islandora Development

FedoraCommons Islandora

Introduction
The Islandora module allows Drupal users to view and manage digital objects stored in Fedora. For more information about this project, see the Islandora Page at UPEI or check out the Islandora guide here.

Documentation
To get started using Islandora you will want to check out the Islandora Guide, the Installation Check List and the Making the Smiley Stuff collection work in Islandora pages. You may also want to check the Troubleshooting page.

Source Code
You may download or browse the source code in our subversion repository at the following locations:
- Monitor: islandora-codewatch [subscribe via google or via email | view ]

Intended for developers, this read-only mailing list provides automatic notification of commits to the source code repository.
We have created a google group to act as a mailing list for the Islandora module. You can send email here islandora@googlegroups.com or visit here http://groups.google.com/group/islandora.

Issue Tracking
Bugs and features for this project will be tracked here.
Development

Installation

To install the Fedora drupal module all you have to do is extract the fedora_repository.zip to the correct directory on the Drupal server. Most modules in Drupal are installed in the sites/all/modules or the sites/default/modules directory. For multi-site Drupal installs you can also put it in sites/sitename/modules.

For more information on installing Drupal modules you can check the [Drupal documentation](https://drupal.org/). Once the files are in place you have to login in to Drupal and configure the module.

Configuring

The first thing that needs to be done is to enable the module. To do this login to Drupal, choose Administration->Modules and find the Digital Repository module in the list of modules. Enable the check box associated with the Digital Repository module and then click Submit.

Once the module is enabled there are basically two parts of the module that need to be configured. The first part is the Fedora connection information, which include URLs needed to pass/receive data from Fedora. The second part of the configuration involves configuring permissions to determine who can do what to Fedora objects from within Drupal.

There are various ways to get to the module admin area in Drupal. The easiest is to click on Administer, then click on the by module tab. Find the Digital Repository section and click on Fedora Collection List.

Fedora Collection List

<table>
<thead>
<tr>
<th>Default Collection Name: *</th>
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<tbody>
<tr>
<td>Library Images</td>
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<tr>
<td>The Name of the Collection to grab the list of items from</td>
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<table>
<thead>
<tr>
<th>Default Collection PID: *</th>
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</thead>
<tbody>
<tr>
<td>*vre mth-100</td>
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<tr>
<td>The PID of the Collection Object to grab the list of items from</td>
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<table>
<thead>
<tr>
<th>Fedora base url: *</th>
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<tbody>
<tr>
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<tr>
<td>The URL to use for Rest type connections</td>
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</table>

<table>
<thead>
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<th>Fedora Soap Management Url: *</th>
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<tbody>
<tr>
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<tr>
<td>The URL to use for soap api-im connections</td>
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<table>
<thead>
<tr>
<th>Fedora Soap Url: *</th>
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<tr>
<td>The URL to use for soap connections</td>
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Roadmap::Summer 09

- Additional Collections & Content Models
  - IslandLives + ABBYY/TEI/Annie Extraction Workflow
  - IslandScholar
  - Gene sequencing/Critter+Fractions+Compounds
- Djatoka/FCK TEI Editor integration
- Easy install, More VM images
Roadmap::Fall 09

- Drupal Hooks+Fedora for tighter integration
  - Automatic Drupal←Fedora synchronization
- Additional Collections & Content Models
  - IslandNewspapers
  - Survey data/R Workflows
- Encryption of objects in repository
- iPhone app for data collection
Red Island Repository Institute
July 20-24, 2009
2nd Fedora Summer Institute on Prince Edward Island

The RIRI Team is working on the 2009 event, which will take place at UPEI from July 20-24. Instructors for the 2009 event include Chris Wilper and Thorny Staples (Fedora Commons), Matt Zumwalt (MediaShelf) and Mark Leggott