Fedora @ UPEI

September 20, 2007
Background

- UPEI: 4K students, 25+ Library staff
  - Development team both staff and contractor
- Getting started in Repository/Digitization
- To date development has been farmed out (UNB) or in-house using DSpace/custom
- Embarking on a series of ambitious projects
CMTC Project

- Culture, Multimedia, Technology, and Cognition project
- Partnership with IBM, UPEI/UdeM/UNB
- “investigate how multimedia can best enhance learning in a variety of cultural contexts”
- Semantic model of Fedora is ideal for CMTC
- Funding do develop a digital library system
Islandora Vision

• Create a seamless digital repository system (DRS) that is integrated into the users environment and context

• Integrate the DRS into primary campus systems, including Drupal, Moodle, Groupwise and MS/Open/Corel Office

• DRS will provide support for Administrative, Learning and Research landscapes
Real Vision

Help build staff capacity by implementing a suite of open source tools that provide a framework for skills development with new and emerging Digitization/Semantic Web tools.

in other words...

Encourage people to play.
“Redefine” Tradition

• Traditional approach is to think of the Library as one silo that provides a very discrete (or traditional) service: around books & magazines

• Emerging academic context is providing libraries with an opportunity to expand vision

• New approach is to think of services and resources of the Library as core/central to all contexts and landscapes...
Administrative Landscape

- Encompasses paper and digital objects that staff work with in the campus context
- Includes Records, Archives and canonical information resources such as Calendar
- Goal is to work with other units on campus to efficiently steward administrative information
Learning Landscape

- Encompasses learning resources and services
- Focus on integration of Moodle and Fedora:
  - Focus on faculty produced data
  - eReserve items (staff produced & auto)
- Integrate Fedora objects in other user contexts, including RSS feeds, e-mail, etc.
Research Landscape

- Encompasses any data that is generated in the course of the Research process
- Goal is to steward short and long-term research data in Fedora, regardless of format or discipline
- Interaction with Fedora needs to be seamless so researchers use it
High-Level Architecture

• Decision to go with Fedora as the best system to support all landscapes and emerging Web

• Desire to have 1 DRS shared across all landscapes using a centralized identity management system

• Desire to extend DRS to non-campus communities to build Island Information Landscape
Research Landscape
Life Cycle Model of Research Knowledge Creation
Chuck Humphrey, UofA

Data Discovery

Data Collection

Data Processing

Data Access & Dissemination

Analysis

Data Repurposing

Research Outcomes

Study Concept & Design

Data

KT Cycl

Data Discovery

Data Collection

Data Processing

Data Access & Dissemination

Analysis

Research Outcomes
Research Communication in The Knowledge Transfer Cycle
Chuck Humphrey, UofA

Value

- teaching/research
- numeracy
- informed public

Initialising
Grant applications, meeting minutes

Analysis
Presentations, conferences, seminars

Formalising
Journal articles, books, curricula content, policy

Popularising
Popular literature, newspapers, practice

Conceptualising
E-mails, letters, literature reviews

Initial Results
Grant reports, technical reports, thesis
VRE Framework

All Disciplines

Research

Teaching

Digital Archive

General

Specific

Web Presence

Chat

Gene Sequences

Image Collections

Citations

Numeric Data - DDI

Papers

Discussion Forums

Conferences

Audio Transcripts

Mark Leggott:

Robertson Library
VRE Components - June 2007

**Drupal CMS**
- Website/Groups
- Discussion Forums
- Blogging/RSS Integration
- Collaborative Editing

**Moodle LMS**
- VRE Education
- Lesson Planning
- Testing/Surveys
- Course Delivery

**Admin Tools**
- dotProject
- Bubbl.us
- Listserv

**Verticals**
- Critter Database
- Sequence Analysis (SMS)
- Academic Conferences (OCS)
- Academic Journals (OJS)
- Virtual Microscopy

**Plugins**
- Quick Chat/Contact
- Chat Discussion/Sharing (Meebo)
- Chat Tech Support (Crafty)
- Citation Management (RefWorks)
- Website Management (Del.icio.us)
- Federated Search/Linking (ASIN)

**Fedora Digital Repository System**
- Documents/Papers/Theses
- Images
- Video/Audio/Animation/3D
- Sequences
- Records/Complex Objects
- Automatic Object Conversion
- Custom Interfaces
- Data Exposure
- Versioning
- Backup/Security
Development Model

- VRE works as a Skunk Works/Sand Box
- Define requirements and develop system/solutions as we go
- Ensure generalization for benefit of all
- Centralize where possible/feasible
- Assume objects accessible from anywhere
Default VRE Structure

- General Website
- Creation/Admin Tools
- Communication Tools
- Library Tools
- Lab Tools
- Repository Tools
Vertical/Plugin Examples

- Sequence database
- Critter database
- Digitization/Image management
- Conference management
- Academic Journal Management
Learning Landscape
Moodle

- Integrate Fedora into Moodle as the LOR
- Provide an “invisible” Fedora tool for Moodle
- Facilitate the “federation” of resources in both the learning and research landscapes and the creation of dynamic collections
Living Archives

- CCOP Canadian Heritage funding
- Create a Drupal/Fedora environment for grade 7 students to create eTexts based on the Anne of Green Gables text and a collection of digital objects from Island cultural institutions
- Integrate objects in Fedora into Second Life (more likely OpenSim and OSS version of SL)
Administrative Landscape
Campus Workflow

- Goal is to use Fedora as an Admin support tool, especially in the area of records and archives.
- As staff create/receive content, place it in Fedora and serve to appropriate context.
- Create natural flow from working documents to final archival copies.
Demos

- Drupal/Fedora integration - CMTC
- Fedora - Living Archives In/Out/Search (la:*)
- Red and White FT Search (fgs.DS.first.text:xx)
- Moodle Library Widget