

# Leveraging Tools and Standards to create an Image Annotation Framework for [Islandora] Repositories

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Track: FUG Islandora Track.

## Abstract

Annotations are an important tool in the scholarly workflow. They can also be used in a crowdsourcing context to add value to digital objects. The presentation will provide an overview of annotations within the repository context, the tools and standards used, modules developed to create the Islandora Image Annotation Framework (IIAF), and will include a demonstration of sites using the framework.

## Developing an Annotation Framework

The last few years has seen a proliferation of image annotation tools and frameworks including TILE<sup>1</sup>, YUMA<sup>2</sup>, DM<sup>3</sup>, imageMAT<sup>4</sup>, and Shared Canvas<sup>5</sup>. The Shared Canvas framework provided a set of compelling use cases, models, standards and code that the Islandora team leveraged to create the Islandora Image Annotation Framework (IIAF). The IIAF is a Drupal7-based Islandora Module<sup>6</sup> that creates standard Open Annotation Collaboration annotations, stores annotations individually as digital objects within Fedora and relates the annotations to the object they reference, provides a toolset for creating and editing annotations, integrates with Islandora's image based solution packs, hooks into Drupal's taxonomy module to provide controlled vocabularies for annotations, and provides indexing/search/discovery of the annotations.

This presentation will provide participants with:

- an overview of issues related to annotations within the repository context and the manuscript (hand drawn maps), text (newspapers), and image (veterinary medical image) annotation use cases at the University of Prince Edward Island;
- a review of the atomistic approach to the Fedora content models developed;
- the adoption and implementation of the Open Annotation Model;
- the integration of Drupal's taxonomies to provide controlled vocabularies for annotation

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<sup>1</sup> Text-Image Linking Environment (TILE) - <http://mith.umd.edu/tile/>

<sup>2</sup> YUMA - <http://yuma-js.github.com/index.html>

<sup>3</sup> DM : Tools For Digital Annotation and Linking - <http://ada.drew.edu/dmproject/>

<sup>4</sup> imageMAT - part of the MARGOT project - <http://mat.uwaterloo.ca/MAT/>

<sup>5</sup> Shared Canvas - <http://www.shared-canvas.org>

<sup>6</sup> Islandora Image Annotation Module - [https://github.com/roblib/islandora\\_image\\_annotation](https://github.com/roblib/islandora_image_annotation)

categories;

- the development of an annotation toolset using the Shared Canvas viewer code as a starting point, with enhanced behaviours to address our use cases and requirements, and an administrative interface;
- the indexing of annotations in Solr/Lucene and discovery using the Islandora Solr Module;
- a demonstration of framework's features and collections that use the framework;
- the challenges and future development of the IIAF.