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How Meta is your Metadata?

Designing a Meta-Metadata Specification for Hyrax

NOTCH8 &
UC SAN DIEGO

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WashU, St Louis, MO

The problem

Metadata profiles need to be written and then manually translated into code

- Metadata modelling is hard and time-consuming
- Hyrax is very flexible
  ...but configuring new metadata properties is fiddly, and needs a developer

M3 Working Group

- Shared, community developed approach to representing metadata models
- Included developers, metadata analysts, hyrax implementers, non-hyrax implementers
- Not application specific

What's been done

- Shared terminology for meta-metadata
- Review of format options
- Draft specification!
- Json schema
- Example data models
- GitHub repo with yaml and json schema validation

profile:
administrative information about the metadata profile/data model being defined by the file

mappings:
definition of the mappings to different services or target schemas referenced

classes:
definition of classes* used

properties:
- property_name
  - display_label
  - definition
  - usage_guidelines
  - requirement
  - controlled_values
  - sample_value
  - property_uri
  - available_on
  - range
  - data_type
  - syntax
  - cardinality
  - index_documentation
  - indexing
  - validations
  - mapping

Ensuring consistency

- A written example and instructions is great … but creating YAML files manually can easily lead to variations
- This might be OK for humans, but computers prefer exactness

```
cardinality:
   minimum: “1”

date_created:
- default: ‘Date
   created’
```

```
cardinality:
   minimum: 1

Date_created:
   default: “Date
created”
```

Validation

- Validation of the profile with a YAML validation tool
  - checks for syntactic errors, like a missing quote mark or curly brace
- Validation of the profile against a JSON Schema
  - checks that the content adheres to a set of rules

—

```
"indexing": {
            "type": "array",
            "items": {
              "type": "string",
              "enum": [
                "displayable",
                "facetable",
                "searchable",
                "sortable",
                "stored_searchable",
                "stored_sortable",
                "symbol",
                "fulltext_searchable"
              ]
            }
          }
```

```
indexing:
- “searchable”
- “facetable”
```

```
indexing:
- “foo”
- “bar”
```

M3 & Hyrax

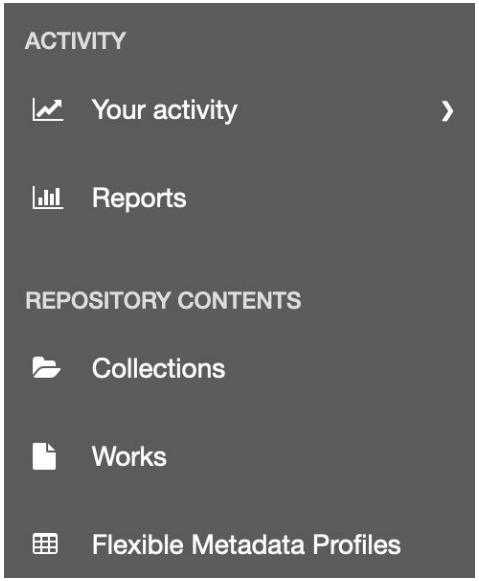
- Could we have Hyrax consuming M3 profiles?
- Could we dynamically generate models, forms, indexers, presenters?
- Could metadata librarians define and maintain their metadata profiles without developers having to implement them?

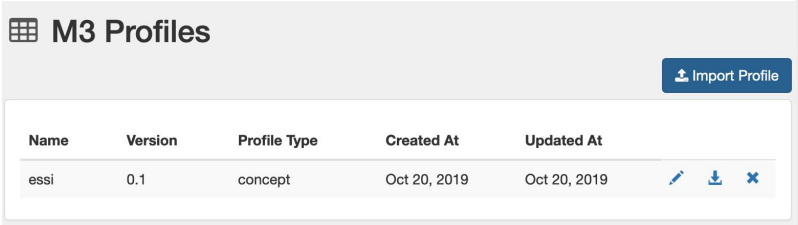
Pre-M3 - Approaches in the wild

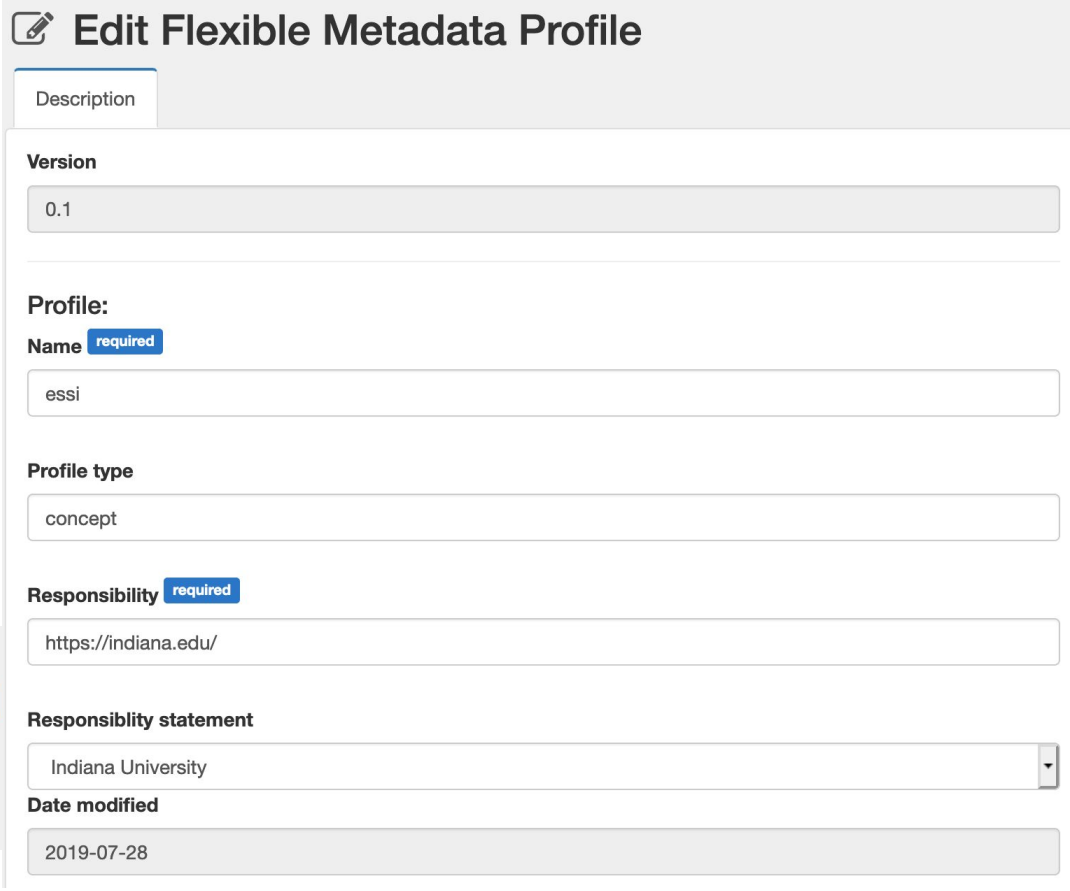
- DIY - lots of examples of local work customisation
- Gems:
  - Dog Biscuits
  - Scooby Snacks
  - Archetypes

Flexible Metadata at Indiana

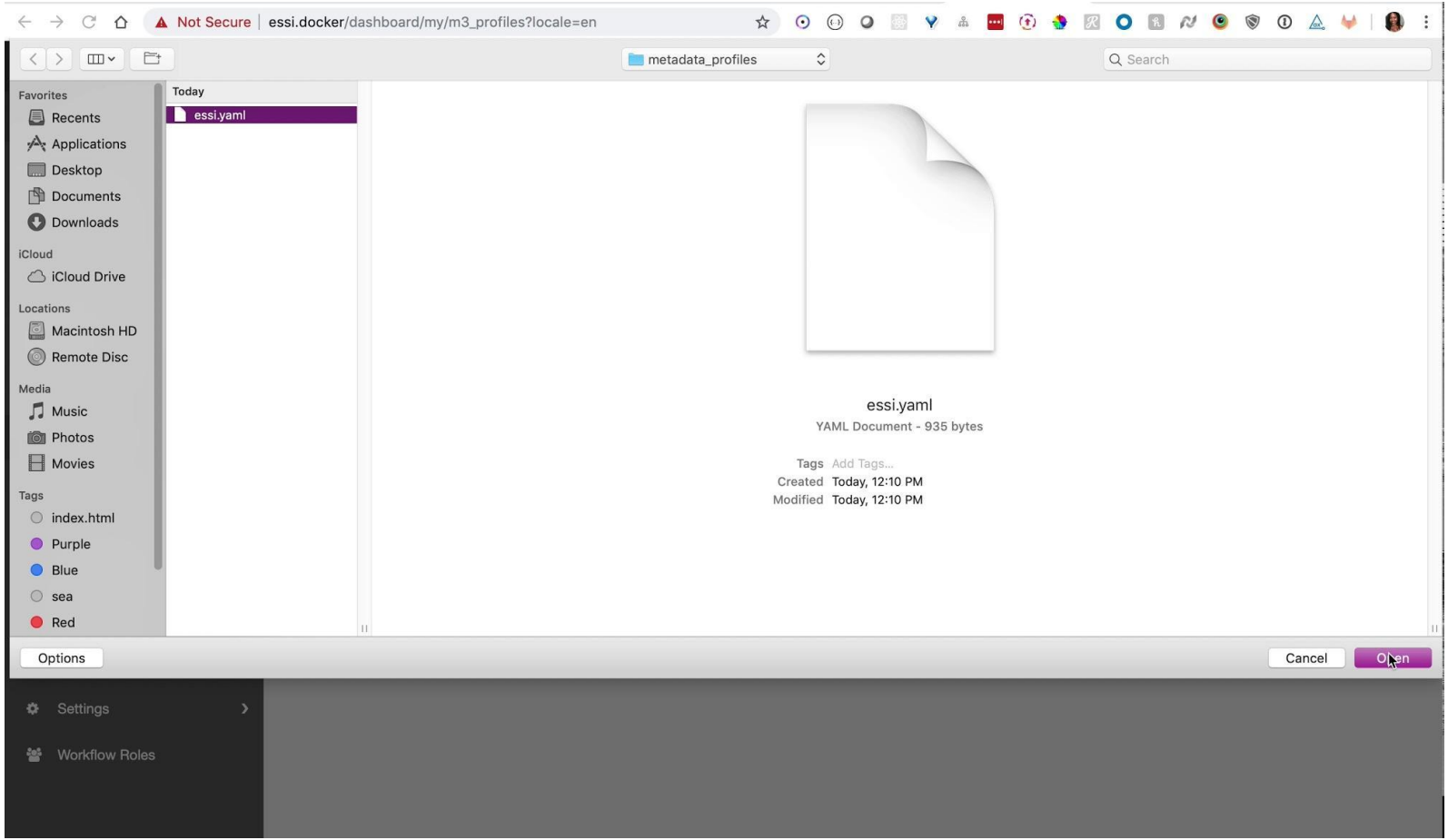
- Prototyping dynamic metadata generation with an m3 profile
  - UI for profile loading / creating / editing
  - Associating properties with works, indexers, presenters and forms
  - Services for loading and validating







Prototyping dynamic metadata generation


Not Secure
essi.docker/dashboard/my/m3_profiles?locale=en
metadata_profiles
Search
Favorites
Recents
Applications
Desktop
Documents
Downloads
iCloud
iCloud Drive
Locations
Macintosh HD
Remote Disc
Media
Music
Photos
Movies
Tags
index.html
Purple
Blue
sea
Red
Today
essi.yaml
essi.yaml
YAML Document - 935 bytes
Tags Add Tags...
Created Today, 12:10 PM
Modified Today, 12:10 PM
Options
Cancel
Open
Settings
Workflow Roles

Specification Maintenance

Define processes for reviewing contributions and suggestions to the specification, review contributions, specification updating.

Specification maintenance group, similar to the URI Selection Working Group

Documentation Generation

Jekyll/GitHub setup and configuration recommendations

Create templates for documentation outputs

questions?

https://github.com/samvera-labs/houndstooth
Samvera slack #m3