skosprovider_heritagedata Documentation

Release 0.1.0

Flanders Heritage Agency

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CHAPTER 1

Introduction

This library offers an implementation of the `skosprovider.providers.VocabularyProvider` interface based on the Heritagedata Vocabularies. These vocabularies are used by *EH*, *RCAHMS* and *RCAHMW* in their role as curators of heritage.

1.1 Supported Heritagedata thesauri

The webservices provides by heritagedata.org provide access to multiple vocabularies or conceptschemes. You can select one of these vocabularies by passing a *scheme_uri* to the constructor of the `HeritagedataProvider`.

Heritagedata Vocabulary schemes

An overview of all *scheme_uri* can be provided by the following service:

www.heritagedata.org/live/services/getSchemes?pretty


```
[
    {
        "uri": "http://purl.org/heritagedata/schemes/agl_et",
        "label": "EVENT TYPE (EH)",
        "label lang": "en",
        "description": "Terminology used for recording archaeological and architectural investigative
        "attribution": "English Heritage"
    },
    {
        "uri": "http://purl.org/heritagedata/schemes/1",
        "label": "Monument Type Thesaurus (Scotland)",
        "label lang": "en",
        "description": "Monument types relating to the archaeological and built heritage of Scotland
        "attribution": "RCAHMS"
    },
    {
        "uri": "http://purl.org/heritagedata/schemes/2",
        "label": "Archaeological Objects Thesaurus (Scotland)",
        "label lang": "en",
        "description": "Objects made by human activity.",
        "attribution": "RCAHMS"
    },
    {
        "uri": "http://purl.org/heritagedata/schemes/3",
        "label": "Maritime Craft Thesaurus (Scotland)",
        "label lang": "en",
        "description": "Types of craft that survive as wrecks, or are documented as losses, in Scotti
```

```
        "attribution": "RCAHMS"
    },
    {
        "uri": "http://purl.org/heritagedata/schemes/11",
        "label": "PERIOD (WALES)",
        "label lang": "en",
        "description": "A list of periods for use in Wales.",
        "attribution": "RCAHMW"
    },
    {
        "uri": "http://purl.org/heritagedata/schemes/eh_tmt2",
        "label": "MONUMENT TYPE (EH)",
        "label lang": "en",
        "description": "Classification of monument type records by function.",
        "attribution": "English Heritage"
    },
    {
        "uri": "http://purl.org/heritagedata/schemes/560",
        "label": "ARCHAEOLOGICAL SCIENCES (EH)",
        "label lang": "en",
        "description": "Used for recording the techniques, recovery methods and materials associated
        "attribution": "English Heritage"
    },
    {
        "uri": "http://purl.org/heritagedata/schemes/eh_tbm",
        "label": "BUILDING MATERIALS (EH)",
        "label lang": "en",
        "description": "Thesaurus of main constructional material types (eg. the walls) for indexing
        "attribution": "English Heritage"
    },
    {
        "uri": "http://purl.org/heritagedata/schemes/eh_tmc",
        "label": "MARITIME CRAFT TYPE (EH)",
        "label lang": "en",
        "description": "A thesaurus of craft types which survive as wrecks in English Heritages marit
        "attribution": "English Heritage"
    },
    {
        "uri": "http://purl.org/heritagedata/schemes/eh_period",
        "label": "PERIOD (EH)",
        "label lang": "en",
        "description": "English Heritage Periods List",
        "attribution": "English Heritage"
    },
    {
        "uri": "http://purl.org/heritagedata/schemes/eh_com",
        "label": "COMPONENTS (EH)",
        "label lang": "en",
        "description": "Terminology covering divisions and structural elements of a building or monur
        "attribution": "English Heritage"
    },
    {
        "uri": "http://purl.org/heritagedata/schemes/eh_evd",
        "label": "EVIDENCE (EH)",
        "label lang": "en",
        "description": "Terminology covering the existing physical remains of a monument, or the mean
        "attribution": "English Heritage"
    },
```

```
    {
        "uri": "http://purl.org/heritagedata/schemes/mda_obj",
        "label": "FISH Archaeological Objects Thesaurus",
        "label lang": "en",
        "description": "Originally developed by the Archaeological Objects Working Party and publishe
        "attribution": "English Heritage"
    },
    {
        "uri": "http://purl.org/heritagedata/schemes/10",
        "label": "MONUMENT TYPE THESAURUS (WALES)",
        "label lang": "en",
        "description": "Classification of monument types in Wales by function",
        "attribution": "RCAHMW"
    }
]
```

CHAPTER 2

Using the providers

2.1 Using HeritagedataProvider

The `HeritagedataProvider` is a general provider for the Heritagedata vocabularies. It's use is identical to all other SKOSProviders. A scheme_uri is required to indicate the vocabulary to be used. Please consult *Supported Heritagedata thesauri* for a complete list.

```
#!/usr/bin/python
# -*- coding: utf-8 -*-
'''
This script demonstrates using the HeritagedataProvider to get the concept of
'POST MEDIEVAL'.
'''

from skosprovider_heritagedata.providers import HeritagedataProvider

periodprovider = HeritagedataProvider({'id': 'Heritagedata'}, scheme_uri='http://purl.org/heritagedat

pm = periodprovider.get_by_id('PM')

print('Labels')
print('------')
for l in pm.labels:
   print(l.language + ': ' + l.label + ' [' + l.type + ']')

print('Notes')
print('-----')
for n in pm.notes:
    print(n.language + ': ' + n.note + ' [' + n.type + ']')
```

2.2 Finding concepts

See the `skosprovider_heritagedata.providers.HeritagedataProvider.find()` method for a detailed description of how this works.

```
#!/usr/bin/python
# -*- coding: utf-8 -*-
'''
This script demonstrates using the HeritagedataProvider to find the concepts with 'iron' in their la
'''
```

```
from skosprovider_heritagedata.providers import HeritagedataProvider

results = HeritagedataProvider({'id': 'Heritagedata'}, scheme_uri='http://purl.org/heritagedata/scher

print('Results')
print('------')
for result in results:
    print(result)
```

2.3 Using expand()

The expand methods return the id's of all the concepts that are narrower concepts of a certain concept or collection.

See the `skosprovider_heritagedata.providers.HeritagedataProvider.expand()` method for a detailed description of how this works.

```
#!/usr/bin/python
# -*- coding: utf-8 -*-
'''
This script demonstrates using the HeritagedataProvider to expand a concept
'''

from skosprovider_heritagedata.providers import HeritagedataProvider

results = HeritagedataProvider({'id': 'Heritagedata'}, scheme_uri='http://purl.org/heritagedata/scher

print('Results')
print('------')
for result in results:
    print(result)
```

CHAPTER 3

Development

Skosprovider_heritagedata is being developed by the Flanders Heritage Agency.

Since we place a lot of importance on code quality, we expect to have a good amount of code coverage present and run frequent unit tests. All commits and pull requests will be tested with Travis-ci. Code coverage is being monitored with Coveralls.

Locally you can run unit tests by using pytest or tox. Running pytest manually is good for running a distinct set of unit tests. For a full test run, tox is preferred since this can run the unit tests against multiple versions of python.

```
# Setup for development
$ python setup.py develop
# Run unit tests for all environments
$ tox
# No coverage
$ py.test
# Coverage
$ py.test --cov skosprovider_heritagedata --cov-report term-missing tests
# Only run a subset of the tests
$ py.test skosprovider_heritagedata/tests/test_providers.py
```

Please provide new unit tests to maintain 100% coverage. If you send us a pull request and this build doesn't function, please correct the issue at hand or let us know why it's not working.

CHAPTER 4

API Documentation

4.1 Providers module

class skosprovider_heritagedata.providers.**HeritagedataProvider**(*metadata*, ***kwargs*)

A provider that can work with the Heritagedata services of http://www.heritagedata.org/blog/services/

expand(*id*)

Expand a concept or collection to all it's narrower concepts. If the id passed belongs to a skosprovider.skos.Concept, the id of the concept itself should be include in the return value.

Parameters **id** (*str*) – A concept or collection id.

Returns A lst of id's. Returns false if the input id does not exists

find(*query*)

Find concepts that match a certain query.

Currently query is expected to be a dict, so that complex queries can be passed. You can use this dict to search for concepts or collections with a certain label, with a certain type and for concepts that belong to a certain collection.

```
# Find anything that has a label of church.
provider.find({'label': 'church'}

# Find all concepts that are a part of collection 5.
provider.find({'type': 'concept', 'collection': {'id': 5})

# Find all concepts, collections or children of these
# that belong to collection 5.
provider.find({'collection': {'id': 5, 'depth': 'all'})
```

Parameters **query** – A dict that can be used to express a query. The following keys are permitted:

- *label*: Search for something with this label value. An empty label is equal to searching for all concepts.
- *type*: Limit the search to certain SKOS elements. If not present *all* is assumed:
  - *concept*: Only return skosprovider.skos.Concept instances.

- *collection*: Only return skosprovider.skos.Collection instances.
- *all*: Return both skosprovider.skos.Concept and skosprovider.skos.Collection instances.

- *collection*: Search only for concepts belonging to a certain collection. This argument should be a dict with two keys:
  - *id*: The id of a collection. Required.
  - *depth*: Can be *members* or *all*. Optional. If not present, *members* is assumed, meaning only concepts or collections that are a direct member of the collection should be considered. When set to *all*, this method should return concepts and collections that are a member of the collection or are a narrower concept of a member of the collection.

Returns

A lst of concepts and collections. Each of these is a dict with the following keys:

- id: id within the conceptscheme
- uri: *uri* of the concept or collection
- type: concept or collection
- label: A label to represent the concept or collection. It is determined by looking at the ***kwargs* parameter, the default language of the provider and finally falls back to *en*.

get_all()
Not supported: This provider does not support this. The amount of results is too large

get_by_id(*id*)
Get a skosprovider.skos.Concept or skosprovider.skos.Collection by id

Parameters **id** (*(str)*) – integer id of the skosprovider.skos.Concept or skosprovider.skos.Concept

Returns corresponding skosprovider.skos.Concept or skosprovider.skos.Concept. Returns None if non-existing id

get_by_uri(*uri*)
Get a skosprovider.skos.Concept or skosprovider.skos.Collection by uri

Parameters **uri** (*(str)*) – string uri of the skosprovider.skos.Concept or skosprovider.skos.Concept

Returns corresponding skosprovider.skos.Concept or skosprovider.skos.Concept. Returns None if non-existing id

get_children_display(*id*)
Return a list of concepts or collections that should be displayed under this concept or collection.

Parameters **id** (*str*) – A concept or collection id.

Returns A lst of concepts and collections.

get_top_concepts()
Returns all concepts that form the top-level of a display hierarchy.

Returns A lst of concepts.

get_top_display()
Returns all concepts or collections that form the top-level of a display hierarchy. :return: A lst of concepts and collections.

CHAPTER 5

History

5.1 0.1.0 (2014-10-08)

- Initial version
- Compatible with SkosProvider 0.3.0.

CHAPTER 6

Glossary

EH English Heritage.

RCAHMS The Royal Commission on the Ancient and Historical Monuments of Scotland.

RCAHMW The Royal Commission on the Ancient and Historical Monuments of Wales.

RDF Resource Description Framework. A very flexible model for data definition organised around *triples*. These triples forms a directed, labeled graph, where the edges represent the named link between two resources, represented by the graph nodes.

SKOS Simple Knowledge Organization System. An general specification for Knowledge Organisation Systems (thesauri, word lists, authority files, ...) that is commonly serialised as *RDF*.

URI A *Uniform Resource Identifier*.

URN A URN is a specific form of a *URI*.

CHAPTER 7

Indices and tables

- *genindex*
- *modindex*
- *search*

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