

# DIGITAL REPOSITORY DATA ACCESS

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## Contents

Introduction .....	1
Islandora interface .....	1
Islandora OAI.....	2
List all collections (sets) .....	2
List records by collections (sets) .....	2
Get record by id .....	2
Top level set identifiers for sets.....	2
Islandora REST.....	3
Search everything; return id, title, description, subjects.....	3
Search subject (aran*); return id, title, description, subjects.....	3
Search by collection (robinson*); return id, title, description, subjects.....	3
Search title OR description for “Wind”; return id, title, description, subjects .....	3
List all information/data streams for an object.....	4
Select by data stream (Thumbnail, JP2, DC, MODS, etc.) .....	4

This document describes [NUI Galway Library](#)’s APIs for its digital content.

## Introduction

The digital repository is currently implemented using [Islandora 7.x](#). As such there are three main methods for data access.

1. [Islandora interface](#) – on an individual basis the Web interface provides access to digital resources and metadata. Best for Web browsing access.
2. [Islandora OAI](#) - responds to [OAI-PMH requests](#), data exposed as XML. Good for exporting metadata from the repository filtered by collection or another variable.
3. [Islandora REST](#) - REST interface for Islandora. It allows for the manipulation of objects, data-streams, and relationships. Only supports JSON. Good for Islandora’s internal micro-services to communicate.

## Islandora interface

View and object and its published metadata

<https://digital.library.nuigalway.ie/islandora/object/nuigalway:1008>

DC view

<https://digital.library.nuigalway.ie/islandora/object/nuigalway:1008/datastream/DC/view>

MODS view

<https://digital.library.nuigalway.ie/islandora/object/nuigalway:1008/datastream/MODS/view>

Technical metadata

<https://digital.library.nuigalway.ie/islandora/object/nuigalway:1008/datastream/TECHMD/view>

Full resolution object

<https://digital.library.nuigalway.ie/islandora/object/nuigalway:1008/datastream/OBJ/view>

Thumbnail

<https://digital.library.nuigalway.ie/islandora/object/nuigalway:1008/datastream/TN/view>

Preview image

<https://digital.library.nuigalway.ie/islandora/object/nuigalway:1008/datastream/PREVIEW/view>

## Islandora OAI

Data is returned as DC XML or MODS XML using metadataPrefix=oai\_dc or metadataPrefix=mods in the request URL.

The maximum number of records issued per response is 200. If the result set is larger than this number, a resumption token will be issued. For example:

List records by Tim Robinson collection (this will list both sub-sets and records)

[https://digital.library.nuigalway.ie/oai2?verb=ListRecords&metadataPrefix=oai\\_dc&set=nuigalway\\_robinson](https://digital.library.nuigalway.ie/oai2?verb=ListRecords&metadataPrefix=oai_dc&set=nuigalway_robinson)

The below XML is provided at the end.

```
<resumptionToken expirationDate="2017-11-14T11:13:48Z" completeListSize="687" cursor="0">695276115</resumptionToken>.
```

Continue with next 200.

<https://digital.library.nuigalway.ie/oai2?verb=ListRecords&resumptionToken=695276115>

List all collections (sets)

<https://digital.library.nuigalway.ie/oai2?verb=ListSets>

List records by collections (sets)

[https://digital.library.nuigalway.ie/oai2?verb=ListRecords&metadataPrefix=oai\\_dc&set=nuigalway\\_robinson](https://digital.library.nuigalway.ie/oai2?verb=ListRecords&metadataPrefix=oai_dc&set=nuigalway_robinson)

Get record by id

[https://digital.library.nuigalway.ie/oai2?verb=GetRecord&metadataPrefix=oai\\_dc&identifier=nuigalway:2623](https://digital.library.nuigalway.ie/oai2?verb=GetRecord&metadataPrefix=oai_dc&identifier=nuigalway:2623)

Top level set identifiers for sets

For all sets <https://digital.library.nuigalway.ie/oai2?verb=ListSets>

Collection name	Collection id
Tim Robinson's townland index for Connemara and the Aran Islands	nuigalway_robinson
Balfour album	nuigalway_balfour

Brendan Duddy Papers	Nuigalway_duddy
Michael Maurice O'Shaughnessy	nuigalway_oshaughnessy
Ritchie-Pickow Collection	nuigalway_ritchie-pickow
Cusack papers	nuigalway_3
Community, Conflict, and Memory (1913-1919)	nuigalway_community-conflict-memory

## Islandora REST

We can query Islandora's Solr index using the REST API. The Solr index contains a wide range of data, so it is useful not only for end-user "discovery" queries, but also for getting lists of pages in book objects and similar queries. Another use for Solr queries is to perform simple analysis on Islandora's content. Results retrieved from the REST API's Solr endpoint typically contain each matching object's unique identifier (called its "PID") so subsequent requests can link to the object or retrieve additional information about the object.

The Islandora REST API returns JSON in response to a Solr query. The JSON contains two parts, a responseHeader and a response. The responseHeader provides information about the query and the response contains one doc per matching object. Each doc contains the fields requested in the fl query parameter. If the fl parameter is omitted, the entire Solr document for each matching object is returned.

### Search everything; return id, title, description, subjects

[https://digital.library.nuigalway.ie/islandora/rest/v1/solr/dc.title:\\*?fl=PID,dc.title,dc.description,mods\\_subject\\_topic\\_ms](https://digital.library.nuigalway.ie/islandora/rest/v1/solr/dc.title:*?fl=PID,dc.title,dc.description,mods_subject_topic_ms)

5704 objects found. First 20 are displayed.

Use start and row to page.

start - the offset (by default, 0) into the responses at which Solr should begin displaying content.

rows - number of rows to return at a time. The default is site-specific.

[https://digital.library.nuigalway.ie/islandora/rest/v1/solr/dc.title:\\*?fl=PID,dc.title,dc.description,mods\\_subject\\_topic\\_ms&start=10&rows=10](https://digital.library.nuigalway.ie/islandora/rest/v1/solr/dc.title:*?fl=PID,dc.title,dc.description,mods_subject_topic_ms&start=10&rows=10)

### Search subject (aran\*); return id, title, description, subjects

[https://digital.library.nuigalway.ie/islandora/rest/v1/solr/dc.subject:aran\\*?fl=PID,dc.title,dc.description,mods\\_subject\\_topic\\_ms](https://digital.library.nuigalway.ie/islandora/rest/v1/solr/dc.subject:aran*?fl=PID,dc.title,dc.description,mods_subject_topic_ms)

### Search by collection (robinson\*); return id, title, description, subjects

[https://digital.library.nuigalway.ie/islandora/rest/v1/solr/dc.relation:robinson\\*?fl=PID,dc.title,dc.description,mods\\_subject\\_topic\\_ms](https://digital.library.nuigalway.ie/islandora/rest/v1/solr/dc.relation:robinson*?fl=PID,dc.title,dc.description,mods_subject_topic_ms)

### Search title OR description for "Wind"; return id, title, description, subjects

[https://digital.library.nuigalway.ie/islandora/rest/v1/solr/dc.title:"Wind"+OR+dc.description:"Wind"?fl=PID,dc.title,dc.description,mods\\_subject\\_topic\\_ms](https://digital.library.nuigalway.ie/islandora/rest/v1/solr/dc.title:)

List all information/data streams for an object

<https://digital.library.nuigalway.ie/islandora/rest/v1/object/nuigalway:3000>

Select by data stream (Thumbnail, JP2, DC, MODS, etc.)

<https://digital.library.nuigalway.ie/islandora/rest/v1/object/nuigalway:3000/datastream/TN>

<https://digital.library.nuigalway.ie/islandora/rest/v1/object/nuigalway:3000/datastream/JP2>

<https://digital.library.nuigalway.ie/islandora/rest/v1/object/nuigalway:3000/datastream/DC>

<https://digital.library.nuigalway.ie/islandora/rest/v1/object/nuigalway:3000/datastream/MODS>