



Repositories, are you ready to ROR?!

An introduction to the Research Organization Registry & Best practices

Matt Buys

ROR Operations Team

 <https://orcid.org/0000-0001-7234-3684>

@ResearchOrgs



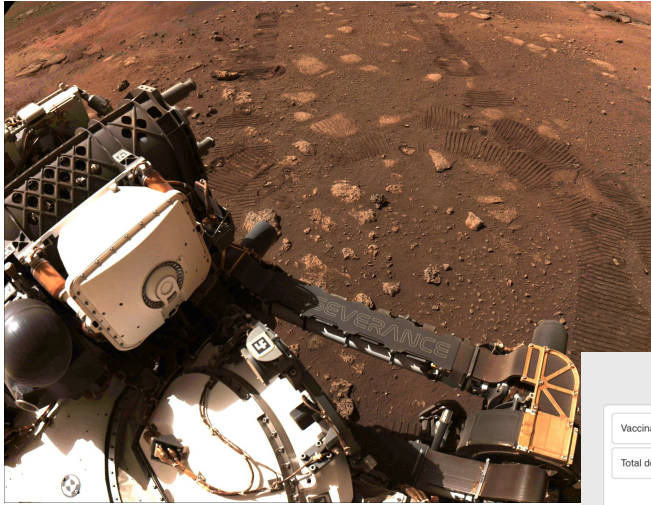


What we'll cover:

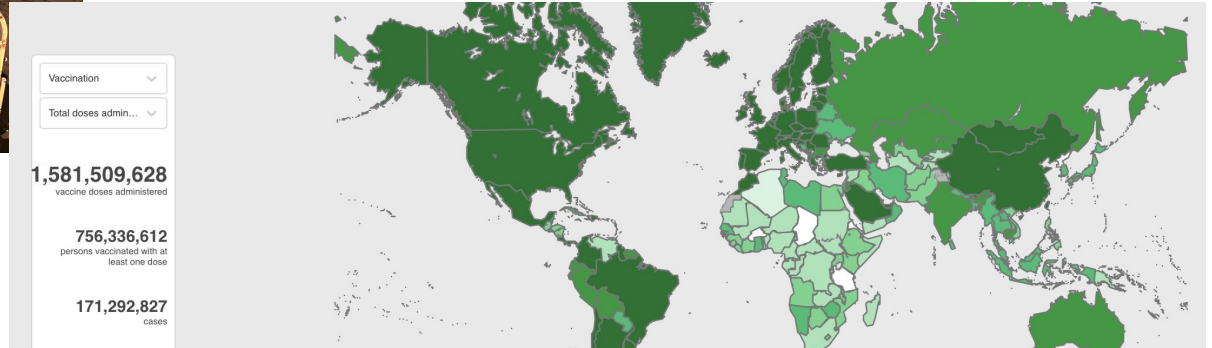
1. ROR basics
2. ROR best practices for repositories
3. Example implementation: Dryad
4. ROR Resources



ROR Basics: Who, what & why?



This year, humans landed *multiple* rovers on Mars!



And developed vaccines at record speed, delivering ~1.6 billion doses worldwide over the past 6 months.

By comparison, finding answers to questions like these should be **easy**, right?

Which items in repositories were authored by researchers at a particular institution?

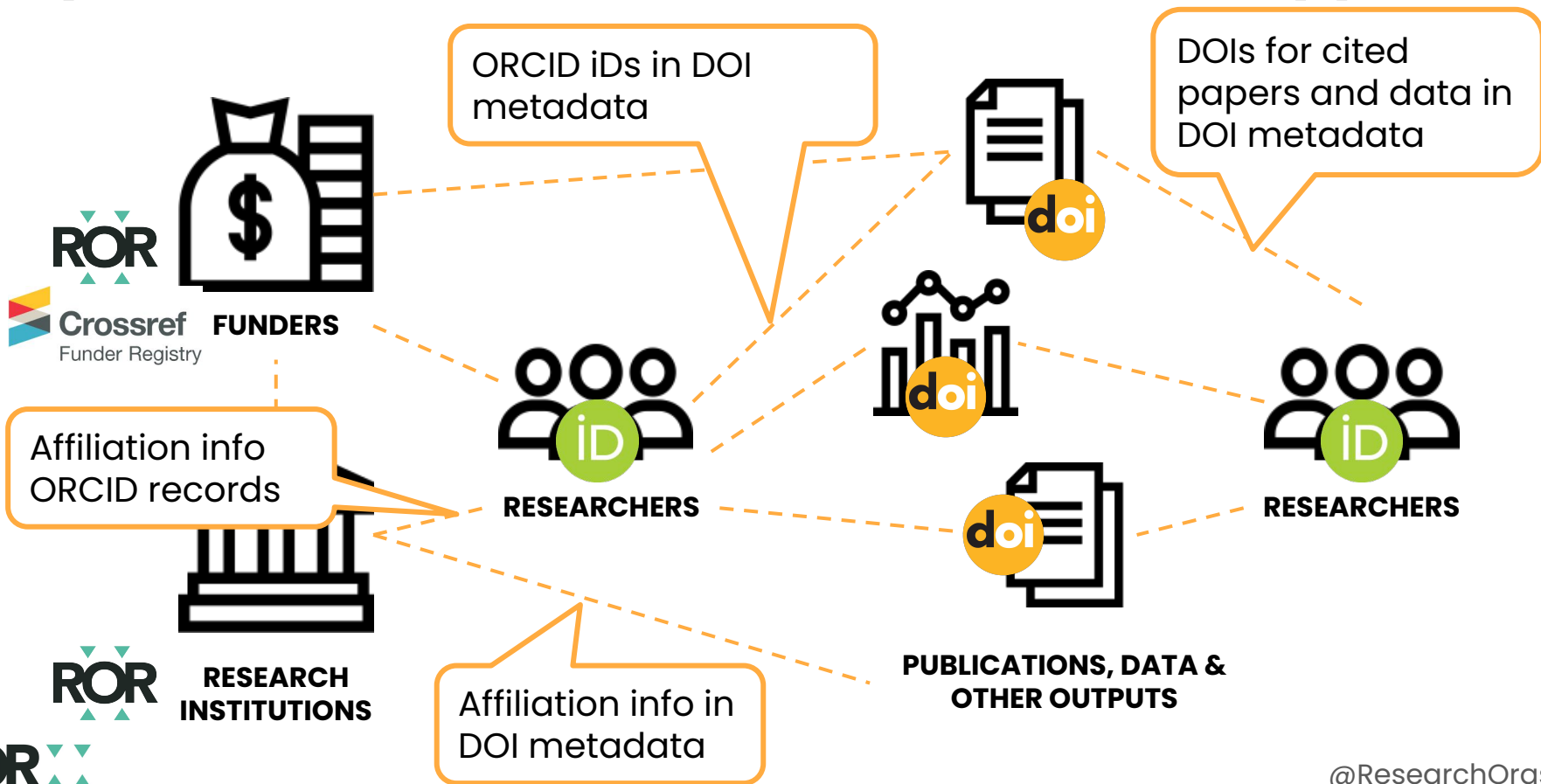
Where are researchers from an institution depositing OA papers & datasets?

And yet...it's still hard

- Many repository records don't include affiliation info
- When they do, names as strings are challenging:
 - **Name variations:** University of Wisconsin, University of Wisconsin-Madison, UW-Madison
 - **Same/similar names:** Ministry of Health

*How can we keep track of researcher affiliations and outputs in a standardized way so that things can be easily automated? **PIDs to the rescue!***

Open PIDs + PID metadata can make it happen!



What is ROR?

Research Organization Registry
*Community-led registry of open,
sustainable, usable, and unique
identifiers for every research
organization in the world 🦁*

Why ROR?

Several ID types for research organizations already existed before ROR's launch:



RINGGOLD

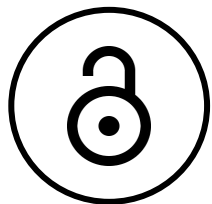


Why another organization ID?!

Why ROR?



- Specifically focused on researcher affiliations
- Connect organizations, researchers & research outputs via **OPEN** infrastructure

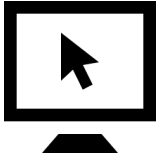


- Non-commercial, fully open (CC0) registry
- Public API, data dump



- Community-led initiative

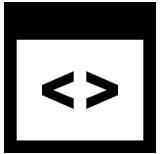
How does ROR work?



Submit article/dataset in system integrated with ROR



Identify affiliation from ROR's controlled list



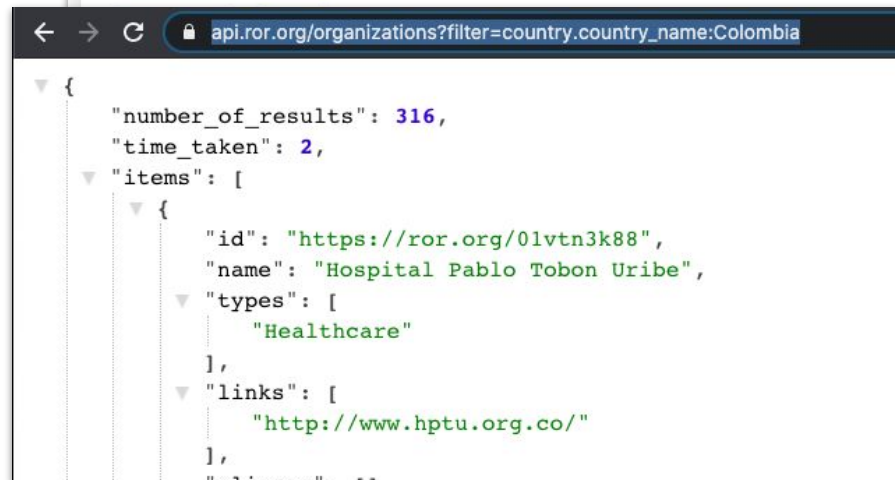
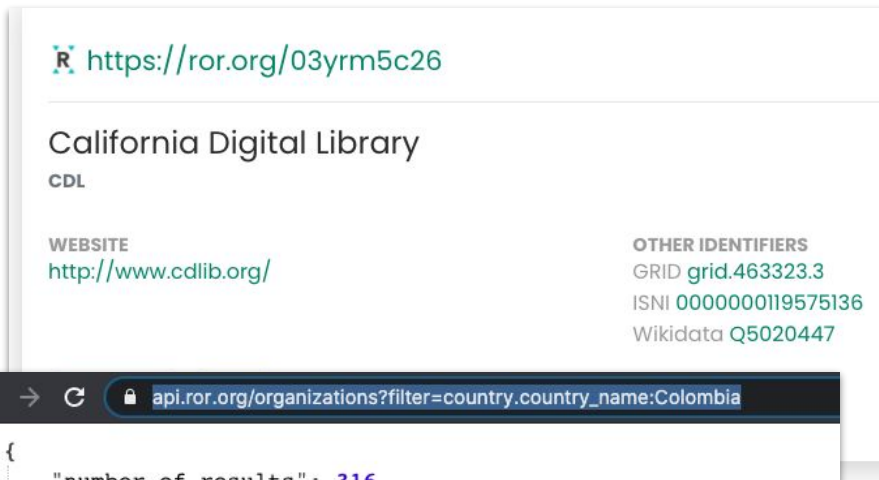
Metadata for research output includes ROR ID



Track and discover research by affiliation

ROR services/tools

- ROR Registry (UI/API)
- Data dumps (Approx quarterly)
- APIs (query, affiliation matching)
- OpenRefine reconciler





ROR Best practices

1. Capture affiliations for new submissions using ROR


Populate typeaheads/dropdowns directly using our query API/data dump, or your map an existing organization list using our affiliation matching API, OpenRefine reconciler or data dump.

Dataset: Basic Information

Title *







































Author(s)










First Name *	Last Name *	Institutional Affiliation *	Author Email *
<input type="text" value="Her"/>	<input type="text" value="Majesty"/>	<input type="text" value="qub"/> <input type="text" value="Queen's University Belfast"/>	<input type="text" value="email@example.com"/>

 <https://sandbox.orcid.org/0000-0003-0323-450X>

[+ Add Author](#)

Abstract *

Source |                                      

Format -   -       

2. Include affiliations with ROR IDs in DOI metadata

DataCite schema v4.3+ supports ROR (and ORCID) in creator/contributor

```
<creator>
  <creatorName nameType="Personal">
    <givenName>Josiah</givenName>
    <familyName>Carberry</familyName>
    <nameIdentifier schemeURI="https://orcid.org/"
nameIdentifierScheme="ORCID">0000-0002-1825-0097</nameIdentifier>
    <affiliation affiliationIdentifier="https://ror.org/05gq02987"
affiliationIdentifierScheme="ROR">Brown University</affiliation>
    <affiliation affiliationIdentifier="grid.268117.b"
affiliationIdentifierScheme="GRID"
schemeURI="https://grid.ac/institutes/">Wesley
</creator>
```

Repeatable, to allow for multiple institutions

ROR is the recommended ID type, but others are also supported.

3. Find metadata records by affiliation from repositories worldwide

Example from DataCite Commons/PIDGraph

<https://commons.datacite.org/ror.org/01y2jtd41>

ROR IDs in can be found using DataCite and EventData APIs, as well as other services/tools that consume DOI records.

<https://ror.org/01y2jtd41>

University of Wisconsin–Madison
UW–Madison, UW
Founded 1848

Links
Homepage
Wikipedia
Twitter

Other Identifiers
GRID [grid.14003.36](#)
Crossref Funder ID [10.13039/100007015](#)
Crossref Funder ID [10.13039/100007870](#)
Crossref Funder ID [10.13039/100008161](#)
Crossref Funder ID [10.13039/100008237](#)
Crossref Funder ID [10.13039/100008028](#)
ISNI [0000000121673675](#)
Wikidata [Q838330](#)
Wikidata [Q33122195](#)
Wikidata [Q7662222](#)

Geolocation
43° 04′ 31″ N, 89° 24′ 35″ E

[United States](#) [Education](#) [DataCite Member](#)

<https://ror.org/01y2jtd41>

Share

Email
Twitter
Facebook

Aggregated Citations, Views and Downloads

371 Citations 38,888 Views 10,439 Downloads

55,446 Works

Publication Year

Work Type

License

Data from: Pumping ions: rapid parallel evolution of ionic regulation following habitat invasions
Carol Eunmi Lee, Michael Kiergaard, Gregory William Gelembiuk, Brian Donovan Eads & Marijan Posavi

4. Match ROR IDs to existing records & update DOI metadata

Find the ROR ID for affiliation info entered as text using our affiliation matching API, OpenRefine reconciler or data dump.

```
curl https://api.ror.org/organizations?affiliation=UW-Madison
```

```
{
  "items" : [
    {
      "chosen" : true,
      "matching_type" : "PHRASE",
      "organization" : {
        "id" : "https://ror.org/01y2jtd41",
        "name" : "University of Wisconsin-Madison"
      }
    }
  ]
  ...
}
```



Example implementation: Dryad

About Dryad

- General-purpose open data repository, open to all researchers
- Assigns DOIs to all items via DataCite (since 2010)
- Did not collect affiliation metadata before implementing ROR
- Affiliation metadata + ROR integration added during major system revamp in 2019

Dryad ROR integration

Dataset: Basic Information

Title *

royal blood: dna seq analysis

Author(s)

First Name *

Her



Last Name *

Majesty

Institutional Affiliation *

|

Author Email *

email@example.com

 <https://sandbox.orcid.org/0000-0003-0323-450X>

+ Add Author

Abstract *



Format |  |  | **B** | *I* | U | ~~S~~ | x₂ | x² | 

Dryad ROR integration



Data from: Towards robust evolutionary inference integral projection models

Janeiro, M. J., University of St Andrews, University of Aveiro

Coltman, D. W.

Festa-Bianchet, M., University of Alberta

Pelletier, F., University of Alberta

Morrissey, M. B., University of St Andrews

Publication date: December 3, 2021

Publisher: Dryad

<https://doi.org/10.5061/dryad.708gr>



```
{
  "id": "https://doi.org/10.5061/dryad.708gr",
  "doi": "10.5061/DRYAD.708GR",
  "url":
"http://datadryad.org/stash/dataset/doi:10.5061/dryad.708gr"
,
  "creators": [
    {
      "name": "Janeiro, M. J.",
      "nameType": "Personal",
      "givenName": "M. J.",
      "familyName": "Janeiro",
      "affiliation": [
        {
          "name": "University of St Andrews",
          "affiliationIdentifier":
"https://ror.org/02wn5qz54",
          "affiliationIdentifierScheme": "ROR"
        },
        {
          "name": "University of Aveiro",
          "affiliationIdentifier":
"https://ror.org/00nt4lz93",
          "affiliationIdentifierScheme": "ROR"
        }
      ]
    }
  ]
}
...
```

Dryad ROR integration



Dryad dataset now discoverable as an output affiliated with University of St. Andrews, even though it's not in a St. Andrews repository (examples from DataCite Commons/PIDGraph).

<https://doi.org/10.5061/dryad.708gr>

Data from: Towards robust evolutionary inference with integral projection models
M. J. Janeiro, D. W. Coltman, M. Festa-Bianchi, F. Pelletier & M. B. Morrissey
Version 1 of Dataset published 2021 in *DRYAD*

Integral projection models (IPMs) are extremely flexible tools for ecological and evolutionary inference. IPMs track the distribution of phenotype in populations through time, using functions describing phenotype-dependent development, inheritance, survival and fecundity. For evolutionary inference, two important features of any model are the ability to (i) characterize relationships among traits (including values of the same traits across ages) within individuals, and (ii) characterize similarity between individuals and their descendants. In IPM analyses, the former depends on regressions of observed trait values at each age on values at the previous age (development functions), and the latter on regressions of offspring values at birth on parent values as adults (inheritance functions). We show analytically that development functions, characterized this way, will typically underestimate covariances of trait values across ages, due to compounding of regression to the mean across projection steps. Similarly, we show that inheritance functions, characterized this way, is inconsistent with a modern understanding of inheritance, and underestimates the degree to which relatives are phenotypically similar. Additionally, we show that the use of a constant biometric inheritance function, particularly with a constant intercept, is incompatible with evolution. Consequently, current implementations of IPMs will predict little to no phenotypic evolution, purely as artefacts of their construction. We present alternative approaches to constructing development and inheritance functions, based on a quantitative genetic approach, and show analytically and through an empirical example on a population of bighorn sheep how they can potentially recover patterns that are critical to evolutionary inference.

DOI registered January 31, 2017 via DataCite.

1 Citation 80 Views 3 Downloads

[Dataset](#) [English](#)

<https://doi.org/10.5061/dryad.708gr>

Creators

M. J. Janeiro University of St Andrews Aveiro	D. W. Coltman University of Alberta	M. Festa-Bianchi University of Alberta
F. Pelletier University of Alberta	M. B. Morrissey University of St Andrews	

Download

Full Metadata DataCite XML DataCite JSON Schema.org JSON-LD	Citation Metadata Citeproc JSON BibTeX RIS
---	--

<https://ror.org/02wn5qz54>

University of St Andrews
St Andrews University
Founded 1410

Links
[Homepage](#)
[Wikipedia](#)
[Twitter](#)




Other Identifiers
GRID [grid.11914.3c](#)
Crossref Funder ID [10.13039/501100000740](#)
Crossref Funder ID [10.13039/501100000586](#)
Crossref Funder ID [10.13039/501100000636](#)
ISNI [0000000107211626](#)
Wikidata [Q216273](#)

Geolocation
56° 20' 28.3704" N, 2° 47' 34.8396" E

[United Kingdom](#) [Education](#) [DataCite Consortium Organization](#)

<https://ror.org/02wn5qz54>

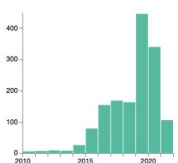


Share

 Email
 Twitter
 Facebook

Aggregated Citations, Views and Downloads

295 Citations	21,843 Views	5,069 Downloads
---------------	--------------	-----------------

1,672 Works

Publication Year 	Work Type 	License 
---	---	---



ROR-sources (er, Resources)

Coming soon!

- Best practices guide for repositories (to be posted on a shiny new support site we're working on)
- Outreach to repository platforms/service providers
- Let us know what tools/platforms *you* want to see ROR integration in! info@ror.org

ROR resources & contacts

Resources page <https://ror.org/resources>

General contact info@ror.org

Email list tinyurl.com/ror-list

API users group:

groups.google.com/a/ror.org/g/ror-api-users

API docs: github.com/ror-community/ror-api



Let's ROR together!

<https://ror.org>
info@ror.org

